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AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1984

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

PART 3 (Pages 1-630)

NONDEPARTMENTAL WITNESSES

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CONTENTS

TUESDAY, APRIL 19, 1983

Page
Nondepartmental witnesses 1

WEDNESDAY, APRIL 20, 1983

Nondepartmental witnesses 195

THURSDAY, APRIL 21, 1983

Nondepartmental witnesses 311
Material submitted subsequent to the hearing 481

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1984

TUESDAY, APRIL 19, 1983

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 9:35 a.m., in room SD–138, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Eagleton, Stennis, and Burdick.

NONDEPARTMENTAL WITNESSES

STATEMENT OF HON. DAVID PRYOR, U.S. SENATOR FROM ARKANSAS

ACCOMPANIED BY LOUIS RAMSAY, JR., PINE BLUFF, ARK.

OPENING STATEMENT

Senator COCHRAN. The subcommittee will come to order.

We want to welcome our colleague and friend, Senator David Pryor from Arkansas, and Mr. Louis Ramsay, who is accompanying him. They will lead off our series of hearings where we get input into the appropriations process from witnesses from the general public and Members of Congress. We have spent several weeks hearing from administration witnesses who have talked about the President's budget request for this next fiscal year. Now, we have an opportunity to extend the scope of our hearings and to hear from nongovernmental witnesses.

We have a large number of persons who have requested an opportunity to testify before this subcommittee. Because of that, we have allocated 3 days to these hearings, but we hope that witnesses can keep their statements brief. We have written statements which we will incorporate into the record, and we would encourage summary comments from those written statements so that we might have an opportunity to hear from everyone who wants to testify.

I am advised that I should announce that the subcommittee cannot receive any copyrighted materials for publication in the hearing record unless arrangements have been made in advance by the witness to obtain permission of the copyright owner of those materials. This notice is given to protect copyright owners, as well as the subcommittee and witnesses.

Welcome, Senator Pryor. We ask you to proceed in any way that you wish.

NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH

Senator **Pryor**. Mr. Chairman, we want to thank you for this opportunity to present this testimony in behalf of the National Center for Toxicological Research in Pine Bluff, Ark.

Mr. Chairman, I have a statement that I would like submitted in full for the record, but to present the case for the National Center for Toxicological Research, better known to us as NCTR, we have one of Arkansas' most distinguished sons and citizens. He is Louis Ramsay. He is the former president of the Arkansas Bar Association. He is also the former president of the Arkansas Bankers' Association. He is the former chairman of the University of Arkansas Board of Trustees. Probably his honors and civic accomplishments could well fill a medium-size, or maybe even a long volume. He is also a close associate, I might add, Mr. Chairman, of a gentleman named Mr. Hugh Clayton, who is a very prominent attorney in the State of Mississippi. For the benefit of the record, Mr. Clayton is Senator Cochran's father-in-law, and resides in Mississippi.

The Senate Appropriations Committee, Mr. Chairman, in its wisdom, chose to favor the National Center for Toxicological Research with a $17 million appropriation figure. That was passed and included in the emergency jobs bill. Something happened to that money in conference, and we came out with $875,000. But we are appreciative of that.

INTRODUCTION OF MR. RAMSAY

This morning, Mr. Chairman and Senator Burdick, we do have Mr. Ramsay to make the case for the approval and inclusion of this money for the expansion of this facility. Mr. Ramsay will tell you something about this work and the research which NCTR is pursuing.

Thank you, Mr. Chairman.

Senator **Cochran**. Thank you very much, Senator.

Mr. Ramsay, you may proceed.

Mr. **Ramsay**. Thank you, Senator Pryor.

Mr. Chairman and Senator Burdick, it is a great pleasure for me to be here and talk about something so vitally important not only to Pine Bluff, Ark., where I live, and the State of Arkansas, but also, I think, to the Nation. We were very much enthused when we saw the $17 million in the jobs bill and very depressed when we saw it taken out in the conference committee. So I am here to hope that we can have that reinstated in the supplemental budget.

It is certainly an honor to have this opportunity to discuss with you these things for Pine Bluff, which is in Jefferson County, Ark., and, of course, the State of Arkansas, as they relate to, as the Senator says, NCTR or the National Center for Toxicological Research. My comments will, of course, talk about the community perspective and, maybe to a lesser extent, the State perspective. But more than that, as I mentioned to you earlier, I sincerely believe NCTR offers to all of us in this country, the individual citizens, the hope for a better quality of life when I tell you a little bit about some of the things that are occurring at NCTR.

PINE BLUFF, ARK.

Pine Bluff is a community of about 60,000 in a county of about 90,000, and it is located about 45 miles southeast of Little Rock. Usually I don't have to identify Pine Bluff, but I had an occasion one time, Senator, in my younger days trying a case in the Supreme Court of the United States. That was a time when the desegregation problems were rampant, and I wanted to identify Pine Bluff; that was about 1957 or 1958. Justice Frankfurter was on the bench, and I said that we were located 45 miles southeast of Little Rock, but we were not nearly as famous as our neighbor to the north, since a lot of publicity was going on at that time, and Justice Frankfurter said, "Mr. Ramsay, sometimes happy is the town without a history." So we didn't have, as our neighbor to the north, a history then, but that has been overcome.

We in Pine Bluff have a good history, and we are trying to move forward in this area. NCTR is certainly part of that.

Just north of Pine Bluff, there is also the U.S. Army's Pine Bluff Arsenal, which in 1953 began operating a biological complex. It had 33 buildings there and about 1.7 million feet of floor space. The purpose of that complex at that time was to produce and safely store, evaluate and process waste material of liquids and dry products that were pathogenic to man. In 1971, that biological complex was terminated and transferred from the U.S. Army to the Food and Drug Administration.

We thought that was quite a move in the right direction—to close what might be biological warfare and, in turn, move that to the Food and Drug Administration and create the National Center for Toxicological Research. Since that time, there has been great use of the highly technical and specialized equipment that was at NCTR. That has been transformed from a defense effort to an effort whose sole purpose is helping mankind achieve what really is a better quality of life through changing and learning about the exposure to toxic chemicals. I think that anybody who has followed the NCTR would certainly be impressed with the idea that it has moved from biological warfare to where we help humanity.

ADVANTAGES OF NCTR TO LITTLE ROCK

From a community standpoint, I would have to tell you, Mr. Chairman, that that facility employs 392 people from Jefferson County and about 130 from Pulaski County, which is the county adjoining Little Rock. The thing about this is it also brings quite a bit of income to the community—over $9 million as far as payroll and $5 million on contract. Also, we have a number of retired employees who live there. We have such a happy atmosphere that when they retire, they just stay. We are pleased to have them. We have about $2 million in utility charges and about $1 million for small purchases in the community. So, with all of that, $17,500,000 goes into the economy. That is important to us.

Some of the other things that are extremely important are the personnel there. We have about 60 employees with doctoral degrees. I can't tell you what that really means to our people. The work force was originally pretty much unskilled, but when NCTR came, they started a training program, and they moved these people from, what were basically, untrained people to highly technical and highly skilled people. That not only helps NCTR, but it also gives us a base for other industries in our community. That has been a great thing for our community also. That particular training in automatic data processing of these people who had, what I would call, just basic skills, where they were only making an income of around $8,000 a year, has helped to raise their average income to about $25,000 per year. Again, that is an important thing in our tax consideration in our area. If you move that many people from $8,000 a year average income to $25,000 a year average income, you certainly can see that it absorbs a great part of our tax problem.

Well, these people, the 60 who have the doctoral degrees I mentioned to you, not only is it great to have them there for finances and other things in the community, but they are a tremendously important resource to our educational area. These people interact with the school system, and they visit in the school system and help in the high technology, scientific areas. As a matter of fact, they have the schools visit NCTR, and those people who are really superior students work there in the summertime. So, in addition to what we see with their usual work, it certainly helps us insofar as we gain experience in the high technology area, an area that is becoming so important today. This is especially true in computers. They have a tremendous computer operation there, and these students from the local high school do work in the computer area.

In addition to that, we have arrangements with NCTR at UAPB, which is the University of Arkansas at Pine Bluff, and the medical sciences campus, which is at Little Rock, about 30 or 40 miles away. They have a doctoral program which is highly competitive, and the last 2 years of that program they spend at NCTR.

So we see that this has been a great thing for us. In addition to that, the vocational technical area is getting to be important, and they are working with the vocational technical area for their employees also.

It is certainly an ample opportunity to mix with the community, to train the community, and to help upgrade the technical aspect of those in the Pine Bluff, Little Rock, Jefferson County area.

SCIENCE AND TECHNOLOGY AUTHORITY

Another thing that is extremely important to us, is that in the last legislature we had legislation passed which is an interesting model of Federal-State cooperation. They created a science and technology authority, which is the first one we have had in our State. Senator Pryor and I were talking a moment ago about someone saying this was probably the most important piece of the legislation that was passed in the last legislature. I told him the strange and interesting thing about it was that it was passed unanimously by both the House and the Senate. I don't think that has ever happened in the history of the State of Arkansas before. It is a new authority, and the key thing and the important seed crystal in that new authority is NCTR because it also works around it. It runs from Little Rock down through Pine Bluff where all the research is taking place. NCTR is the thing that gave it the force to bring about the authority. That, I think, is going to be a great thing for our State.

VISITING DIGNITARIES

It also offers to our community an opportunity to see and visit with dignitaries. We have highly skilled, scientific people who are visting in that area, and we have from 8 to 10 who are there all the time. They are world-renowned people, and that certainly gives us an opportunity to visit with and see these foreign scientists and the Government officials who visit there throughout the year.

NCTR PROGRAMS

Now, Mr. Chairman, I recognize that what I talked about earlier benefits basically Pine Bluff, Jefferson County, and Arkansas, and that these are really ancillary to the thing you are interested in, which is the Government's real purpose for NCTR. We as members of the community where NCTR is located benefit in the same way. In addition to all the things we get, we benefit in the same way the people of the United States benefit and the rest of our society benefits by that critically important resource which is NCTR. I think all of us recognize the fact that regulation to control chemicals in the world that we live in can certainly be no better than the knowledge on which those regulations are based, and that really is what NCTR is doing. They are studying the chemicals. They are studying the way to regulate those chemicals, and they are giving us the facts with reference to the toxic chemicals. They are doing an outstanding job, and we are certainly proud of the accomplishments that have taken place and pleased that this need is being addressed.

I am told that the programs at NCTR work on detoxifying environmental contaminants, chemicals, and pesticides, which you are certainly interested in in Mississippi. They are working on such things as mold-contaminated grains and toxic chemicals in the soil. Just yesterday, I visited with some of the people there, and they told me some of the other interesting things that are going on. They have also done a lot of research on saccharin. We are all familiar with the problems that have been talked about with reference to saccharin. NCTR scientists have been among those leading the way in trying to really get down to the nub of whether it can be used or cannot be used and how much does cause a problem.

Another thing that was interesting to me was incinerator research. We are concerned about what happens to all our toxic chemicals. We can't bury them properly, and we can't put them in the sea. They are working on the total incineration of those toxic chemicals so we can burn them to get rid of them. That has been one of the greatest things. They are also working on solar energy and how it relates to the use of fossil fuel.

Another interesting thing they have is an index of all those things which relate to toxicological research. One simply hits a button on a computer, and it can tell us what research has been done. It is like a big dictionary insofar as research is concerned.

So, Mr. Chairman and Senator Burdick, I am pleased that the director of that Federal facility has worked diligently to assure the efficient and effective use of the taxpayers' dollars at NCTR. I might say to you that I tried to read the names of some of the equipment that they have out there. It is so sophisticated. I am sure people who work there understand it, but for a layman, such names as nuclear isotope resonance spectrometer, airborne plastic emission spectrometer, and ultraviolet visible anatomic spectrometer are difficult just to name. I say that to tell you that there is 60 million dollars' worth of this type of specialized equipment at NCTR, and we really need to fund that to make it even more effective than it is. I strongly believe that any funds that your committee and the Senate and House appropriate to NCTR will represent a kind of program that the taxpayers of the United States would support and would benefit from.

I want to express my appreciation to you for allowing me to make this statement.

Senator COCHRAN. Thank you, Mr. Ramsay. I want to compliment you for an excellent statement. We appreciate your taking time to come up here to Washington to be with us today and explain to us, in a practical way, how this is going to provide a great deal of benefit for the Nation and for your area of Arkansas. I think the fact that we had some money included in the conference report on the jobs bill, even though it was much less than our committee had urged, indicates a consensus of support for new construction. That was a big hurdle, and we have crossed that hurdle. Now, the job is to try to determine the appropriate level of funding for the construction program. I think the new building is going to be completed. It is just a matter of how soon we can get it done. We are going to be working on it, and with help from people like you, and influence from folks like you, I think it will certainly move along at a swifter pace. Senator Pryor's support, of course, is very important, and he constantly reminds us about how important that facility is. We appreciate that very much. Thank you.

Senator PRYOR. Thank you, Mr. Chairman.

Mr. Chairman, if I may make about a 30-second observation and follow up to Mr. Ramsay's statement.

The NCTR facility is serving another vital function. I know he could not list all of the functions, but one of those functions that I consider vital—I had the privilege of touring the facility last month—is that because of the expertise of NCTR and because of the quality of personnel there and their advanced work in many areas, they are now being utilized as a contracting agency for many areas of the Federal Government, throughout our Federal system. This research, as Mr. Ramsay has stated, is immediately plugged into a computer and shared with all other agencies of Government, especially, Mr. Chairman, in the field of dioxin study. We have seen so many horror stories in the past 2 years about dioxin—dioxin in our soil and water, et cetera, and this center is truly, I think, on the cutting edge of that research effort. We just think that rather than slowing down, or keeping the same pace, that we should accelerate our efforts at the Center in the area of birth defects and the effects of these chemicals on the unborn and those who are born into this world filled with chemical agents that certainly have an adverse effect on the population. I am certain this Center is going to be one of the leading research institutions in our country, perhaps our world, Mr. Chairman.

So, we appreciate your consideration. We thank you for allowing us to testify. Once again, I would like for my statement and that of Mr. Ramsay's to be included in the record.

Senator COCHRAN. They will be included in full.

Senator Burdick, did you have questions?

Senator BURDICK. No questions.

Senator COCHRAN. Thank you very much.

[The statements follow:]

STATEMENT OF SENATOR DAVID PRYOR

Mr. Chairman, I would like to thank you for giving me the opportunity to come before this subcommittee today to testify on a matter of great importance. With me is a distinguished Arkansan, Mr. Louis Ramsey of Pine Bluff, Arkansas, a distinguished attorney, banker, civic leader and a member of the Board of Trustees of the University of Arkansas. Mr. Ramsey joins me today because of his familiarity with NCTR and the Jefferson County community as well as his understanding of the importance of federal funding which will create jobs and stimulate research which the government should now be pursuing aggressively.

As a component of the Food and Drug Administration, NCTR conducts research programs to study the biological effects of potentially toxic chemical substances found in man's environment and develops improved scientific procedures for evaluating the safety of chemical toxicants and their long-term effects.

The emphasis is on problem-solving, not just problem identification. Too often government researchers simply devote their attention to the identification of problems. NCTR takes this process to the next and most important step, by directing substantial research toward finding ways to detoxify substances which have harmful effects on man.

The Senate Appropriations Committee, during its consideration of the Emergency Jobs bill, recognized the wisdom of federal support for NCTR, and included $17 million in its version of the bill for expansion/renovation projects. Unfortunately, during the Senate-House conference, funding was reduced from $17 million to $ 875,000.

I am before you today to ask that you include substantial funding - particularly including the remaining $16,125,000 approved by the Senate earlier - in the FY 84 appropriations bill which you will consider over the next few months. During consideration of the recent jobs bill NCTR had the support of the Senate Appropriations Committee. NCTR will need no less support in the future if it is to receive the funding it needs so desperately to carry out its mission.

NCTR is pursuing a myriad of research projects, including research into effective cleanup methods for dioxin, nutrition research to determine carcinoginic impacts of certain chemicals in food products, as well as DES and saccharin research. As you can see, NCTR is involved in timely research which demands attention now, for our protection and for the protection of those who follow.

The importance of the type of work which takes place at NCTR must not be lost on Congress. It is critical that we understand our responsibility to commit adequate resources to an area with such potentially dramatic human implications.

Mr. Chairman, although NCTR is administered primarily by the FDA, it conducts research for many federal agencies. Besides FDA, it is currently involved in projects for the Environmental Protection Agency, the Consumer Product Safety Commission, the Department of Agriculture and the Department of Defense.

I had the pleasure of visiting NCTR earlier this month, and I was most impressed with the quality of scientific study. What NCTR needs now, though, is a chance to expand to its fullest potential. In doing so, I'm confident it will repay our investment many times over. An investment today, could mean the saving of many lives in the future.

Again, Mr. Chairman, thank you for the opportunity to come here today. I urge the members of this subcommittee to give serious consideration to the funding needs at NCTR which I have mentioned. I will be happy to assist in any way.

STATEMENT OF LOUIS L. RAMSAY, JR.

I AM BOTH PLEASED AND HONORED TO HAVE THIS OPPORTUNITY TO APPEAR BEFORE YOU TODAY TO DISCUSS THE NEEDS OF PINE BLUFF (JEFFERSON COUNTY), ARKANSAS, AS THEY RELATE TO THE NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH. ALTHOUGH I WILL DIRECT MY COMMENTS

PRIMARILY FROM A COMMUNITY PERSPECTIVE AND, TO A LESSER EXTENT, A STATE PERSPECTIVE, I BELIEVE THAT NCTR OFFERS ALL OF US AS INDIVIDUAL CITIZENS OF THIS NATION THE HOPE OF A BETTER QUALITY OF LIFE.

METROPOLITAN PINE BLUFF IS COMPRISED OF APPROXIMATELY 90,000 PEOPLE, LOCATED 45 MILES SOUTH OF LITTLE ROCK. JUST NORTH OF PINE BLUFF, WITHIN JEFFERSON COUNTY, IS THE U.S. ARMY'S PINE BLUFF ARSENAL WHICH IN 1953 BEGAN OPERATING A BIOLOGICAL COMPLEX INCLUDING 33 BUILDINGS WITH A TOTAL FLOOR SPACE OF 1.7 MILLION SQUARE FEET. THE BUILDINGS AND EQUIPMENT AT THE FACILITY WERE DESIGNED TO SAFELY PRODUCE, EVALUATE, STORE AND PROCESS WASTE MATERIAL FROM A VARIETY OF LIQUID OR DRY PRODUCTS PATHOGENTIC TO MAN. BY AGREEMENT SIGNED ON JUNE 15, 1971, THE COMPLEX OF BUILDINGS WAS TRANSFERRED FROM THE UNITED STATES ARMY TO THE FOOD AND DRUG ADMINISTRATION, AND BECAME THE NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH. SINCE THAT TIME, THE CONSIDERABLE AND SPECIALIZED PHYSICAL PLANT HAS BEEN TRANSFORMED FROM A PART OF A DEFENSE EFFORT TO AN EFFORT WHOSE SOLE PURPOSE IS TO HELP MANKIND IN ACHIEVING A BETTER QUALITY OF LIFE THROUGH AN UNDERSTANDING OF THE PROCESSES RESULTING IN INFIRMITIES CAUSED BY EXPOSURE TO TOXIC CHEMICALS.

NCTR EMPLOYS 392 PEOPLE FROM JEFFERSON COUNTY AND 130 FROM NEIGHBORING PULASKI COUNTY WHICH ENCOMPASSES LITTLE ROCK. DURING FISCAL YEAR 1982, THE FEDERAL PAYROLL OF NCTR WAS $9,188,200, AND

THE PAYROLL OF THE CONTRACT PERSONNEL WAS $5,052,600. THIS DOES NOT INCLUDE THE SALARIES OF RETIRED EMPLOYEES WHO REMAIN IN OUR AREA. IN ADDITION TO THE PAYROLLS, THE CENTER PAID $2,125,000 FOR UTILITIES TO LOCAL UTILITY COMPANIES, AND OVER $1,000,000 TO VARIOUS LOCAL BUSINESSES FOR SMALL PURCHASES. IN ALL, THE CENTER CONTRIBUTED SOME $17,400,000 INTO THE LOCAL ECONOMY DURING THE PAST YEAR. FROM A STRICTLY PERSONNEL EMPLOYMENT PERSPECTIVE, NCTR IS IMPORTANT TO JEFFERSON COUNTY IN WHICH THE UNEMPLOYMENT RATE IS APPROXIMATELY 10% AND THE AVERAGE ANNUAL PER CAPITA INCOME IS LESS THAN $8,000.

IN ADDITION TO THE DIRECT PAYMENTS TO LOCAL EMPLOYEES, NCTR MAINTAINS A HIGHLY TRAINED WORKFORCE. IN MANY CASES, THIS WORKFORCE CAME TO NCTR RELATIVELY UNTRAINED AND THE CENTER PROVIDED VALUABLE TRAINING WHICH NOT ONLY ALLOWS UPWARD MOBILITY OF THE EMPLOYEES, BUT ALSO PROVIDES A BASE FOR OTHER INDUSTRIES IN THE AREA. IN TERMS OF UPWARD MOBILITY, THE CENTER HAS FOCUSED CONSIDERABLE ATTENTION ON TRAINING EMPLOYEES IN AREAS OF CERTIFIED ANIMAL CARE, IN HISTOPATHOLOGY TECHNIQUES, IN THE USE OF HIGHLY SOPHISTICATED TECHNOLOGICAL EQUIPMENT, AND IN AUTOMATIC DATA PROCESSING. AS THE EMPLOYEES HAVE GAINED THESE SKILLS, THEY HAVE ALSO ADVANCED UP THE WAGE SCALE AND NOW EARN MUCH MORE THAN THEY WOULD HAVE WITHOUT THE CENTER. BECAUSE OF THESE RELATIVELY HIGH SALARIES (APPROXIMATELY $25,000 PER YEAR), THE EMPLOYEES HAVE

SUPPORTED THE LOCAL COMMUNITY IN TERMS OF PAYING HIGHER TAXES AND TRANSFERRING REAL ESTATE. THE TAX CONSIDERATION IS IMPORTANT; WHEN ONE CONSIDERS THE AVERAGE SALARY OF AROUND $8,000 FOR THIS AREA, IT IS CLEAR THAT A $25,000 SALARY ABSORBS A RELATIVELY LARGE PORTION OF THE TAX BURDEN.

BECAUSE OF NCTR'S 60 DOCTORAL LEVEL EMPLOYEES, THERE IS A TRANSFER OF INFORMATION INTO THE LOCAL COMMUNITY AND THESE INDIVIDUALS BECOME AN IMPORTANT RESOURCE TO THE SCHOOL SYSTEMS. THE FACT THAT THERE IS A HIGH TECHNOLOGY SCIENTIFIC ENDEAVOR IN THE COMMUNITY PROVIDES THE OPPORTUNITY FOR STUDENTS TO TOUR THE FACILITY AND RECEIVE FIRST-HAND EXPOSURE TO A UNIQUE SCIENTIFIC ENVIRONMENT. IN ADDITION, THE CENTER HAS ENTERED INTO PROGRAMS WITH THE LOCAL SCHOOLS TO ENABLE SUPERIOR STUDENTS TO WORK AT THE CENTER DURING THE SUMMER AND TO GAIN EXPERIENCE UTILIZING SOME OF THE HIGH TECHNOLOGY EQUIPMENT, ESPECIALLY THE COMPUTERS.

IN TERMS OF HIGHER EDUCATION, THE CENTER HAS FORMAL PROGRAMS WITH THE UNIVERSITY OF ARKANSAS AT LITTLE ROCK, THE UNIVERSITY OF ARKANSAS AT PINE BLUFF, AND THE UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES. THE LATTER PROGRAM IS A DOCTORAL TRAINING PROGRAM WHICH IS HIGHLY COMPETITIVE AND IN WHICH THE STUDENTS SPEND THE LAST TWO YEARS OF THEIR TRAINING AT NCTR.

OTHER POSSIBILITIES EXIST FOR UTILIZING NCTR'S HIGH TECHNOLOGICAL CAPABILITY FOR TRAINING STUDENTS. THERE HAVE BEEN

SOME RECENT DISCUSSIONS WITH THE VOCATIONAL-TECHNICAL EDUCATION COUNCIL IN TERMS OF TRAINING VO-TECH STUDENTS AND THERE HAS ALSO BEEN SOME DISCUSSION OF INTERACTING WITH THE GRADUATE INSTUTE OF TECHNOLOGY. NCTR BELIEVES THAT WITH THE APPROXIMATELY $60 MILLION WORTH OF SOPHISTICATED EQUIPMENT, THERE ARE AMPLE OPPORTUNITIES TO TRAIN STUDENTS.

IN ADDITION TO STUDENT TRAINING, I BELIEVE THE CENTER'S CAPABILITIES HAVE THE POTENTIAL FOR SERVING THE STATE OF ARKANSAS EXTREMELY WELL AND OF BECOMING AN INTERESTING MODEL FOR A NOVEL APPROACH TO FEDERAL/STATE COOPERATIVE PROGRAMS. THE STATE OF ARKANSAS IS CLEARLY INTERESTED IN SUCH A DEVELOPMENT AS EVIDENCED BY THE RECENT UNANIMOUS PASSAGE BY BOTH STATE HOUSES OF A SCIENCE AND TECHNOLOGY AUTHORITY TO PROMOTE THE DEVELOPMENT OF TECHNICAL CAPABILITIES IN ARKANSAS. NCTR FORMED AN IMPORTANT SEED CRYSTAL FOR THE THOUGHT BEHIND THIS LEGISLATION AND THE TECHNOLOGICAL FOCUS FOR FUTURE DEVELOPMENT AND TRAINING.

THE CENTER ALSO OFFERS THE LOCAL COMMUNITY THE OPPORTUNITY TO INTERACT WITH VISITING DIGNITARIES FROM AROUND THE WORLD. THE CENTER HAS AN EXTREMELY ACTIVE INTERNATIONAL VISITING SCIENTIST PROGRAM AND GENERALLY HAS FROM EIGHT TO TEN HIGHLY RESPECTED VISITING SCIENTIST WORKING AT THE CENTER AT ANY GIVEN TIME. NUMEROUS FOREIGN SCIENTISTS AND GOVERNMENT OFFICIALS VISIT THE CENTER THROUGHOUT THE YEAR.

I recognize that the benefits I have just mentioned are ancillary to the government's real purpose for NCTR. We, as members of the community in which NCTR is located, benefit in the same way that the rest of our society benefits from the kind of critically important research being conducted at NCTR. The community recognizes the fact that regulations to control chemical exposure can be no better than the knowledge on which they are based. This society must have the kind of investment represented by NCTR if it is to solve the problems facing us in the regulation of toxic chemicals.

Those of us in the local community of NCTR are proud of the Center's accomplishments with respect to regulatory research, but we also are pleased with their recognition of the need to address solutions to regulatory problems. We are constantly made aware of another Federal institution which is also concerned with finding solutions to those problems. I am told that the programs at NCTR include efforts to detoxify environmental contaminants and chemicals such as pesticides, mold-contaminated grain, and toxic chemicals in the soil.

Mr. Chairman, we are also pleased that the Director of this Federal facility has worked diligently not only to assure efficient and effective use of taxpayers' dollars, but has also worked to have NCTR fit in as a good and supportive neighbor of our

COMMUNITY. I STRONGLY BELIEVE THAT ANY FUNDS TO CONSTRUCT NEEDED FACILITIES AT THE NCTR REPRESENT THE KIND OF PROGRAMS MOST TAXPAYERS WOULD SUPPORT SINCE THEY WOULD BENEFIT SO MANY.

NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

STATEMENT OF JOHN DUNBAR, DEAN, COLLEGE OF AGRICULTURE, KANSAS STATE UNIVERSITY

ACCOMPANIED BY:
- DON CROSSAN, DEAN, COLLEGE OF AGRICULTURE, UNIVERSITY OF DELAWARE
- JOHN WOESTE, DEAN, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF FLORIDA
- GENE LOVE, ASSOCIATE DEAN, RESIDENT INSTRUCTION, PENNSYLVANIA STATE UNIVERSITY
- RICHARD A. SKOK, DEAN, COLLEGE OF FORESTRY, UNIVERSITY OF MINNESOTA
- SIDNEY EVANS, ASSOCIATE DEAN, AGRICULTURAL RESEARCH, NORTH CAROLINA A&T STATE UNIVERSITY
- HOOVER CARDEN, ADMINISTRATOR, EXTENSION PROGRAMS, PRAIRIE VIEW A&M UNIVERSITY
- RICHARD DIERKS, DEAN, COLLEGE OF VETERINARY MEDICINE, UNIVERSITY OF ILLINOIS
- ELIZABETH ELLIOTT, ASSOCIATE DEAN, COOPERATIVE EXTENSION SERVICE, IOWA STATE UNIVERSITY
- MALCOLM PURVIS, PROFESSOR, INTERNATIONAL AGRICULTURE, UNIVERSITY OF MINNESOTA

Senator COCHRAN. Our next group is a panel. We would like to ask Dr. John Dunbar, Dean of the College of Agriculture, Kansas State University, to come forward and bring your colleagues, or as many of them as you would like to have join you at the witness table. I don't know if we have enough chairs, but you can pull them up from the first row there and make do.

This is a group representing the National Association of State Universities and Land-Grant Colleges. We have statements from a number of the representatives of this Association, and we will include those statements in full in the record.

[The statements follow:]

NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES BUDGET STATEMENT FOR FISCAL YEAR 1984

SECURING AMERICA'S FOOD AND AGRICULTURAL BASE

The Division of Agriculture of National Association of State Universities and Land-Grant Colleges, with full cognizance of its member institutions' unique mandate under the law, recommends several modifications to the President's proposed agricultural research, extension and teaching budget for Fiscal Year 1984. The Division believes the recommended changes to the proposed budget are imperative to secure America's food and agricultural base and to enable the land-grant institutions to meet their responsibilities under the law.

The Federal legislation determining the role and relationship of the land-grant colleges and the Department of Agriculture for food and agriculture, research, extension and teaching stretches over 120 years and is embodied in more than 50 acts. The essence of this mandate is expressed clearly in the Bankhead-Jones Act of 1935 which states that their purposes shall be:

> "...the establishment and maintenance of a permanent and effective agricultural industry including such investigations as have for their purpose the development and improvement of the rural home and rural life, and the maximum contribution of agriculture to the welfare of the consumer and the maintenance of maximum employment and national prosperity..."

To meet this responsibility, it is imperative that the continuity and effectiveness of the agricultural research, extension and teaching system be maintained. The land-grant colleges in cooperation with the U.S. Department of Agriculture constitute a unique knowledge system which is the foundation for American agriculture's productivity and efficiency.

The foundation of the system is education. The teaching component provides the scientists, technicians, educators and entreprenuers for the entire food and agriculture system. This critical component of the agriculture system is endangered at this time. The number of graduate students in disciplines related to agriculture has declined sharply resulting in some shortages of expertise now and protracting greater shortages in the future. Our nation is facing an extremely complex array of problems in food and agriculture. The needed scientists, leaders and educators to meet these challenges in the future must be trained now. The Division of Agriculture believes the initiation of a new competitive graduate fellowship program to redress the fundamental problem -- lack of scientific expertise -- is of highest priority.

Maintenance of the research capacity to address the complex array of problems in food and agriculture is critical to our national well being. Adequate support of agricultural research to identify and respond to the commodity and site specific problems of today as quickly and efficiently as possible must be provided. In addition, expanded efforts in the basic sciences and with emerging technologies such as genetic engineering are needed to build the knowledge base that will provide our farmers, business people and consumers with solutions tomorrow and beyond.

For the system to work, the knowledge developed through research must be delivered to the people who need it. Extension's primary responsibility is transferring useful and practical information from the laboratory and classroom to the people through agriculture, home economics, 4-H, and community development programs. Today, there is a massive need for useful and practical information to help people help themselves. Farmers and small business people are in the grip of economic distress unparalleled since the Great Depression. Homemakers face a similar set of problems as they try to deal with family needs in a classical price-cost squeeze. The energy crisis and subsequent realignment of nearly every aspect of our lives demands new knowledge to respond constructively. The delivery component of our land-grant system must be strengthened.

Our forefathers gave us a unique agricultural science and education system. The land-grant colleges and the U.S. Department of Agriculture provide the science and technology for the most efficient agriculture and food production system the world has known. However, for this system to remain viable the support base of science and education must be maintained.

For these reasons, the Division of Agriculture of NASULGC believes it must recommend the following adjustments to the Fiscal Year 1984 budget.

--Seven percent increase in the base programs over Fiscal Year 1983. These include the Hatch Act ($10.5 million), McIntire-Stennis Act ($.9 million), Smith-Lever Act sections 3b and 3c ($16.1 million), 1890 Extension ($3.7 million), and 1890 Research ($1.6 million). The increases are needed to maintain the base and to permit new initiatives in emerging scientific areas.

--Restoration of the $5.8 million funding level for animal health research with an addition of $2.2 million to the section 1433 program plus $4 million for section 1434. The animal health research program has never been funded commensurate with need. The $12 million recommended will provide the critical funds needed to begin to meet the severe problems of animal health and disease.

--Restoration of $2 million for renewable resources extension plus an addition of $3 million. No need is greater than the conservation and management of our natural resources. The $5 million is needed to achieve a viable national effort.

--Restoration of all special grant and extension 3(d) items to Fiscal Year 1983 levels.

--Initiation of three new extension programs -- integrated reproductive management, aquaculture and provisions for new federal initiatives totalling $8 million.

--Addition of $10 million for a new competitive graduate fellowship program.

National Association of State Universities and Land-Grant Colleges
Division of Agriculture Fiscal Year 1984 Budget Recommendations
Cooperative Federal/State Agricultural Research, Extension & Teaching
(In Thousands of Dollars)

Cooperative State Research Service	**FY1983**	**Executive Budget**	**NASULGC Recommendations**
Hatch Act	$149,295	$149,295	$159,745
McIntire-Stennis	12,452	12,452	13,324
1890 & Tuskegee Research	22,394	22,394	23,962
Animal Health & Research			
Section 1433	5,760	-0-	8,000
Section 1434	-0-	-0-	4,000
Competitive Grants	17,000	21,500	21,500
Special Grants	26,533	15,482	26,533
Alcohol Fuels	540	-0-	540
Native Latex	702	-0-	702
1890 Facilities	10,000	10,000	10,000
Federal Administration	*273	592	592
	244,949	231,715	268,898
Extension			
Smith-Lever:			
Sections 3b & 3c	230,376	230,376	246,502
Section 3d:			
Pest Management	7,531	-0-	7,531
Farm Safety	1,020	-0-	1,020

Cooperative State Research Service	FY1983	Executive Budget	NASULGC Recommendations
Urban Gardening	3,000	-0-	3,000
EFNEP	60,352	34,821	60,354
Pesticide Impact Assessment	1,716	-0-	1,716
Integrated Reproductive Management	-0-	-0-	4,000
Aquaculture	-0-	-0-	2,000
New Federal Initiatives	-0-	-0-	2,000
1890 Colleges & Tuskegee Institute	16,241	16,241	19,967
Renewable Resources Extension	2,000	-0-	5,000
D.C. Extension	983	983	1,052
Federal Administration	*5,433	4,661	4,661
	328,654	287,082	358,803
Higher Education			
Competitive Graduate Fellowships	-0-	-0-	10,000

*Administrative support funds for CSRS and ES are derived from two sources -- percentage set aside of programs and direct appropriations. In 1983, the total administrative fund for CSRS was $7.5 million; the total for ES was $11.8 million. Because of the set aside, the NASULGC recommendation should result in some increase for both programs.

EXPLANATORY NOTES FOR RECOMMENDED INCREASES

I. Research Programs

A. Maintenance of Base Program Capacity (+$12,890,000)

The central component of federal base support - formula funds through Hatch, McIntire-Stennis, and 1890's and Tuskegee - coupled with a much larger commitment by state governments, provides the resources for site-specific research and for meeting emergency needs within states. An increase in this base funding is essential to help meet rising costs of continuing research programs.

Fundamental research is needed now to provide the foundation for applied research in the future. An understanding of the basic physical, chemical, biological, and economic processes governing soil productivity and the growth and adaptability of plants and animals must be achieved. For example, if the soybean plant were as efficient as the corn plant, soybean yields would more than double.

Additional research is needed to provide the information for improvement of forest and range resource management. The knowledge derived from research could expand the use of conservation tillage, develop a more useful erosion/soil productivity model, and improve practices for increasing water use efficiency.

Major advances have been made in plant, animal, and forestry production efficiency in the past 40 years. However, projections indicate productivity must increase soon if we are to have adequate supplies of food, fiber, and forestry products in the next century. Multidisciplinary research approaches that integrate a broad spectrum of talents can help find ways to achieve higher rates of productivity.

B. Animal Health Research (+$12,000,000)

The Animal Health Research Program is a basic program similar to Hatch and McIntire-Stennis, but has never been funded commensurate with need. The $12 million recommended will restore $5.8 million and provide the funds needed to implement strategies for increasing productivity of farm animals by controlling diseases and pests, improving efficiency of feed utilization and nutrition, better utilizing the genetic capabilities of animal germplasm, and better management practices. This program will make it possible for scientists to persist until complex animal health problems are solved.

There are two important components in this section: 1) The need for a continuing base of support for animal health research and 2) The development of regional research capability. The first component can only be achieved when a consistent level of federal support is established. Unfortunately, the Executive Branch has treated the program as a special one-year effort rather than as a base program. The second factor recognizes that some states have made extraordinary commitments to animal health research. Since transfers of funds among states is politically difficult, if nearly impossible, federal support of regional animal health research is necessary to compensate for the multi-state benefits.

C. Special Grant Restoration (+$11,051,000)

The special research grant program is designed to provide accelerated solutions to high-priority food and agricultural problems specific to a region or state. Colleges and universities with food and agricultural research capability are eligible for these grants. Recipients are responsible for carrying out specific research assignments mutually agreed upon with the U.S. Department of Agriculture. The grants are often made to cover research of several years' duration. Therefore, it is important that projects in the current budget be carried forward into fiscal year 1984.

II. Extension Programs

A. Maintenance of Base Program Capacity (+$19,852,000)

The principal adjustment is a seven percent increase in Smith-Lever 3b and 3c funds over the 1983 budget of $16,126,000. Maintenance of the base programs in agricultural and natural resources, home economics, 4-H, and rural development is essential to address severe soil and water conservation problems, agricultural production and marketing issues, and farm and family financial management difficulties. In addition, a rapid transition to use of computer and communications technology within the states is underway. State, local and private funding sources are providing the equipment essential for improved operational efficiency and using computer-delivered information in decision making. Acquiring and maintaining the staff necessary to utilize the new equipment is essential to realizing greater advances in decision making on financial management, marketing, and general farm and home business management.

The other major adjustment in base programs is an increase of $3,726,000 to the 1890 and Tuskegee extension program to fully implement the provisions of Section 1444 of P.L. 95-113 as amended. These increased funds are needed and will be utilized to conduct extension programs designed to benefit economically and socially disadvantaged groups.

B. Restoration to Ensure Maintenance of Critical Special Programs (+$38,800,000)

The 3d funds are distributed to states to address specific problems. The funding formula for each program is based upon the extent of the problem in each state. Continuation of 3d items is essential to respond to the well-documented problems upon which these programs focus.

EFNEP (+$25,533,000): With increasing national emphasis on enhancing family and individual self reliance, the EFNEP program has emerged to a new level of importance. While adequate nutrition, especially for youth and child-bearing mothers remains a critical concern, educational assistance for those coping with reduced incomes and unemployment is particularly essential. The educational program provides a scientific base of information for adjusting to changing family financial conditions as well as changing nutritional needs dictated by maternal conditions and growth status in the family.

Integrated Pest Management (+$7,531,000): Continuing concerns about water quality, environmental impact, and cost of food and fiber production have created demands for crop and food animal pest control employing a combination of suppression methods. The Integrated Pest Management Program (IPM) appropriation has supported an array of projects targeted to the particular needs of each state. Refinement of the projects as well as development of new projects, each requiring an array of scientific disciplines and a new level of scientific and managerial expertise, would be seriously curtailed with elimination of the 3d targeted dollars.

Pesticide Assessment (+$1,716,000): Since chemicals continue to be an important suppression tool, continued evaluation of materials controlling new pests and pests developing resistance to existing materials is important. Another essential activity supported by pesticide impact assessment funds is the labeling of materials with their beneficial organisms.

Farm Safety (+$1,020,000): Linked with effective use of chemicals are the educational efforts addressing safe use and handling of chemicals. Chemical and farm equipment use represent major causes of lost time and personal injury accidents. They can be reduced through ongoing education programs.

Urban Gardening (+$3,000,000): A rapidly growing segment of our population lacks an understanding of the inputs and risks associated with the production of food and fiber. This program provides urban youth and adults with the opportunity to grow plants for food and environmental improvement. Their application of agricultural sciences in food production, which draws upon the knowledge of the university, has contributed to general improvement in the diets of the gardeners, enhanced community cooperation, and widespread personal satisfaction for the participants.

C. Program Enhancement

Renewable Resources Extension (+$5,000,000): The program to improve productivity of the privately owned forest and range lands would be increased $3 million. The added funding would support development of an accelerated program in the 50 states and the territories. Under current management, the forest, range land, and wild life resources under private ownership are yielding far less than their potential. With accelerated use of existing technology, the profitability of the resources can be increased and the growing demands upon renewable resources will be met.

Integrated Reproductive Management (+$4,000,000): The current reproductive levels of our food animals offer an opportunity for marked improvement. Through a concerned educational program integrating a wide array of scientific disciplines, the number of beef calves weaned could be substantially increased, calving intervals in dairy cows reduced, and the number of eggs per hen raised a dozen a year.

Aquaculture (+$2,000,000): The extension aquaculture program in the states has been evolving with the development of new technology and the growth of the industry. The proposed program expansion would produce substantial results in a number of important areas. They include increased reproduction, reduction of losses due to disease and pests, expanded use of byproducts, and increased growth rates.

New Federal Initiatives (+$2,000,000): The evolving problems and concerns of people served by the cooperative extension program demand the development of new programs. In recent years, the state extension services have been cognizant of emerging regional problems. To enable states to effectively address the problems common to several states or a region and to encourage innovative programs, a small special fund is proposed. Technology is one area in which this program can be employed. Creative use of technology can help the food and fiber industry capitalize on opportunities for increased productivity, greater efficiency, and added profitability while supplying goods at a reasonable cost.

III. Graduate Fellowship Grants (+$10,000,000)

Additional scientists are needed to maintain our nation's capacity to conduct and disseminate basic research in the food and agricultural sciences, improve production cost efficiencies, and better manage soil and water resources. Additional professional food and agricultural expertise is needed to adequately staff college and university research and education programs in several key disciplines.

Some 650 to 700 masters degree and doctoral students would be supported during the initial year of the program. They would be awarded fellowships made available to colleges and universities equipped to provide instruction in shortage areas. These include plant and animal genetics, agricultural engineering, soil and water sciences, agricultural economics, animal reproduction, food science, human nutrition, and animal health.

STATEMENT OF DR. ELIZABETH A. ELLIOTT, IOWA STATE UNIVERSITY

Home economics programs support a basic institution in our society - the family. The American family is on the front lines of the battle to cope with societal change. Unemployment, energy costs, housing, nutritional needs, the increased number of women employed outside the home and changing family life patterns are all societal forces with which families must cope.

Home economics is the only field where the whole family is the focus of research and educational programs. Strong home economics research is needed to support programs which address the needs of families.

The rural and nonrural family systems are becoming more homogeneous because of improved transportation and mass media. The need for better knowledge of the family infrastructure is essential because of the family systems' contribution to a strong agricultural production system. The role of the family system in food production and consumption, fiber and wood utilization, their housing needs and their management strategies all continue to require study.

Home economics, human nutrition, and family living form an integral part of food and agriculture. Families have a major impact on agriculture through their consumption and household production practices, their provision of human capital, and their contribution to preserving the quality of the natural environment.

Research and educational programs focusing on family economic stability and security are a top priority in home economics. The increasing complexity of family management, the growth in personal debt and the uneven performance of the economy place American families in greater financial difficulty than was anticipated. Families are faced with the necessity of reevaluating expectations with respect to their changes in real income and material levels of living. Improved applications of electronic technology are needed to assist families with economic planning.

Strong research programs in family economic stability and security, based on an improved research based data bank, are needed to support Extension home economics programs designed to help families identify their needs, conserve their resources, achieve a desired level of living, and be informed participants in the evaluation and formulation of public policy affecting families. In Extension programs across the country, programs in family financial counseling are helping families make better use of their resources. Basic budgeting programs are helping young families avoid financial difficulty. A variety of programs are helping unemployed families cope with the financial and emotional stress of unemployment.

Home economics educational programs rely upon research in human nutrition to provide information for use in programs with a variety of clientele. Nutrition affects the health of every individual from the time of conception to death. Eating patterns are constantly changing and are influenced by a number of factors including food prices, family income, food advertising and marketing, convenience of preparation, ethnic and cultural backgrounds. Eating patterns are also influenced directly by the issues of energy, the economy, foreign and national policy decisions on agriculture and food that ultimately determine food supply and prices.

Current interest in nutrition is high. Much is still unknown about the individual variability of nutrient requirements, especially among the elderly. Questions include what percentage of the nutrients consumed as food are actually utilized by the body and how much food do individuals in different age groups need to eat daily in order to meet their nutritional requirements. Research can help to answer these and other questions relating to nutrient requirements.

Basic research utilizing animal models and humans can lead to understanding of optimum need of individuals for a given nutrient. More knowledge regarding the chemical composition of foods (nutrient and non-nutrient) is needed. The adequacy of human diets is dependent upon both the content and bioavailability of dietary nutrients. Studies are needed to determine which factors may alter the bioavailability of nutrients in raw, processed, and formulated foods.

More than two million homemakers have been enrolled in the Expanded Food and Nutrition Education Program since it began in 1969. Homemakers have learned how to feed their families more nutritional, economical meals. The dietary practices of children in these families have improved. There are a multiplicity of influences on food choices, many of which are beyond the control of educational programs. A major limiting factor in recent years has been the availability of financial resources for obtaining food. While financial resources do not guarantee adequate nutrition, neither can knowledge of nutrition and a desire to improve family diets substitute for cash or food stamps at the grocery store. EFNEP is helping low resource families make use of their resources to improve their nutrition level.

Families and the situations in which they operate are everchanging. The problems of families are interrelated and an integrated approach is needed. The need to address the critical concerns of families makes imperative an adequate and sustained level of funding for research and for the educational programs based on research which are designed to help families improve their quality of life.

We urge your consideration of support for the FY 84 budget as presented by the National Association of State Universities and Land Grant Colleges. Federal leadership and support are vital to a strong home economics research and education program. Continued formula funding and funding of special and competitive grants in areas related to home economics is vital if we are to continue to address the critical problems facing America's families.

STATEMENT OF HOOVER CARDEN, PRAIRIE VIEW A&M UNIVERSITY

MR. CHAIRMAN:

I am Hoover Carden, Administrator of the 1890 Cooperative Extension Program at Prairie View A&M University - Texas, and the 1890 Representative to the ECOP Legislative Subcommittee.

I appreciate very much the opportunity to appear before you today, and to make a statement in support of the 1890 and 1862 Land-Grant Universities fiscal year 1984 budget request. This budget has been reviewed and sanctioned by the Division of Agriculture of the National Association of State Universities and Land-Grant Colleges. However, my specific purpose here is to precisely outline for you the value and need for the Extension thrusts emanating through the sixteen - 1890 Land-Grant Colleges. I will provide specific information regarding mission, history, funding, staffing, programs and clientele served.

Mission

The mission of the Cooperative Extension Programs at 1890 Land-Grant Institutions and Tuskegee Institute is to aid in improving the quality of life of families with limited resources, but not at the exclusion of other income groups who need and seek these services.

By providing Extension programs through these 1890 colleges, the vast amount of untapped resources that exist at these colleges can and are being utilized to enhance the efforts of Extension work in the 16 states.

History

In 1971, Congress earmarked a portion of Smith-Lever 3(d) funds for Extension work at 1890 Land-Grant Institutions and Tuskegee Institute. After the passage of the Food and Agriculture Act of 1977, the 1890 Land-Grant Institutions and Tuskegee Institute received complete autonomy over Extension programs.

The Act provided that not less than 4 percent of Extension funds under the Smith-Lever Act of May 8, 1914 would be appropriated for Extension work at 1890

Land-Grant Institutions and Tuskegee Institute. Recognizing the significant contributions of 1890 colleges and universities, Congress, in 1981, amended the Act of 1977 to provide for not less than 6 percent of Smith-Lever funds for Extension programming.

The Cooperative Extension Programs at the 16 historically black Land-Grant Institutions and Tuskegee Institute are conducted in cooperation with respective 1862 counterparts to provide an effective network of educational programs to help people help themselves. The Extension programs at 1890 institutions are unique because few organizations work effectively with limited-income clientele groups.

Major Program Areas

The programs designed to be implemented through the 1890 Land-Grant Colleges are basically the same as the major program areas being implemented through the 1862 Land-Grant Colleges. The basic difference is our target audience—which is limited-income, and the delivery mechanism.

The four major program areas of 1890 Extension are: agriculture and natural resources, home economics, community resource development, and 4-H and youth.

Areas of emphasis conducted within the major programs by various states are:

1. Agriculture and Natural Resources:

- Beef Cattle Production
- Catfish Production
- Christmas Tree Production
- Corn Production
- Goat Production
- Home Vegetable Gardening
- Horticulture Hotline
- Poultry Production
- Small Fruit Production
- Swine Production
- TVA Small Farmers Program

2. Home Economics:

- Child Development
- Clothing and Textile
- Energy Conservation
- Family Life
- Family Resource Management
- Foods and Nutrition
- Health Education
- Home Beautification (interior)
- Home Management
- Leisure and Cultural Education
- Pre-retirement Training

3. Community Resource Development:

- Community Clean-up, Fix-up
- Community Organization
- Craft Production
- Farmers Market
- Home Construction
- Home Ground Beautification
- Home Improvement
- Leadership Development
- Rural Fire Department
- Senior Citizens Program
- Waste Disposal

4. 4-H and Youth:

- Bicycle Safety
- Career Development
- Citizens Program
- Community Pride Program
- Leadership Development
- Photography
- Public Speaking
- Urban 4-H Gardening
- Youth Environment
- 4-H Camp Activities
- 4-H EFNEP

Program Impacts

The 1890 institutions have demonstrated success in helping small farmers change to farm practices offering increased income; helping families with limited resources cope with inflation; helping youth become responsible and contributing citizens; and improving overall quality of living within the cultural context of the clientele.

During 1982, a total of 1,233,981 clientele was reached through the 1890 program efforts. The following indicates the number of clientele served by program areas and ethnic groups.

Clientele served by program areas are:

Agriculture and Natural Resources	278,359
Home Economics	522,764
Community Resource Development	89,189
4-H and Youth	343,669

Clientele served by ethnic groups are:

Black	696,710
White	525,032
American Indian	1,922
Hispanic	8,631
Asian	1,686

Through efficient technical and educational assistance, the 1890 Extension Program has had tremendous economic impact on its low-income clientele. As a result of program efforts, small farmers, youths, homemakers, and communities have saved dollars, increased their incomes, and improved their homes, communities and farms.

In Texas, small farmers participating in the Catfish Farm Pond Program alone realized over $285,000 net profit in 1982. In Florida and Mississippi, limited-income families realized savings of over $435,200 from their vegetable gardens; and, in Arkansas, families realized a savings of over $188,000 from food preservation.

Staffing

A large number of 1890 personnel are paraprofessionals. Paraprofessionals are utilized as change agents in the delivery system. A substantial percentage of the staff consists of highly trained professionals, who have the responsibility of providing continuous training, guidance, and backup support for paraprofessionals and clientele groups.

The total number of personnel employed with the 1890 Cooperative Extension Programs is 768, and is listed below by categories:

Professional	262
Paraprofessional	364
Support	
Clerical	105
Fiscal	14
Technical	23

Funding

Since 1977, the largest percent of increase for 1890 colleges occurred in fiscal year 1983. This level of funding was due to an increase from 6 percent of the total Smith-Lever funds approved in the 1981 Farm Bill. However, the total 6 percent required by the legislation was not received. The President's budget contained the full 6 percent, but the Appropriations Committee reduced the amount from 6 percent to 5.3 percent in fiscal year 1983, which is not in compliance with the law set forth in the 1981 Farm Bill.

In order for 1890 institutions to continue providing relevant and viable programs to their clientele, not only must the full 6 percent be received, but additional funds are necessary for expansion and implementation of new program thrusts.

The budget figures listed below reflects the low funding rate of 1890s, from 1978 to the present.

Fiscal Year	Smith-Lever/ Percentage	Other/ Percentage	Total
1978	98.9	1.1	$ 8,263,683
1979	97.1	2.9	9,998,528
1980	96.2	3.8	10,425,923
1981	94.7	5.3	11,397,888
1982	95.0	5.0	12,335,782
1983	96.0	4.0	16,238,439

Unfortunately, the increased funds received in fiscal year 1983 could not be utilized for program expansion or for adding new programs. These monies were needed and had to be used for increased cost of operations and filling over 65 paraprofessional and over 60 professional vacant positions which had occurred over the years of low funding.

Summary

The information provided in this statement reflects that 1890 Institutions and Tuskegee Institute have the experience and expertise to communicate with and provide educational assistance to limited-income clientele and special audiences to help them move into the mainstream of society.

According to data received from each of the 1890 institutions, more than 95 percent of the monies received were federal Smith-Lever funds. During the period 1978-82, these funds did not increase at the rate that would allow 1890 institutions to keep pace with inflation. Therefore, it has not been possible to maintain adequate staffing, expand programs and reach additional clientele who need and seek educational assistance from these 1890 institutions.

Presently, 1890 Institutions and Tuskegee Institute are experiencing clientele increases for the following reasons: elderly people are moving into the poverty cycle, family structure changes (high divorce rates are causing single family units), and changes in community structure.

In addition, increased use of electronic technology in the United States has created the need for re-training professional staff and the development and refinement of programs.

Finally, in order for 1890 Institutions and Tuskegee Institute to adequately address the changing needs of a growing clientele base—caused primarily by rapidly changing technology and a volatile economic situation, more funds are needed to implement or expand thrusts in the following program areas during the 1980s.

1. Land loss (small and minority farmers)
2. Transfer of technology to special audiences
3. Renewable resources (small woodlot owners, aquaculture, and wildlife)
4. Housing rehabilitation
5. Youth motivation and lifeskill development

Increased funding is greatly needed for both 1890 and 1862 Institutions in order that these important concerns for Extension programs in the 1980s will be adequately addressed.

STATEMENT OF DR. JOHN T. WOESTE, UNIVERSITY OF FLORIDA

The Extension in the 80s report released February 28, 1983, stated "...Cooperative Extension programming must retain broad flexibility at all levels if it is to remain relevant and respond to the dynamics of change for the greater good of people and their communities. Extension's accomplishments have been impressive; the service has great potential for continued educational impact on America. The committee reaffirms the value and the need for the land-grant system, including Cooperative Extension."

Cooperative funding and multi-level input into extension programming are essential to insure the system's capacity to address changing national priorities, applying new research findings, and shifting local interest. The record of American agriculture suggests affirmative answers to questions such as "can agriculture keep up" and "can growth and productivity be restored" if the necessary research- and technology-based education programs are funded. It is within this framework that we present recommendations for adjustment to the Fiscal Year 1984 Executive Budget.

RECOMMENDED MODIFICATIONS

1) Smith-Lever 3(b) and 3(c)

A seven percent increase in Smith-Lever 3(b) and 3(c) formula funds is proposed to meet increased costs and enable continuation of program shifts to critical areas. This increase also is needed to stop the decline in the federal share of extension support. In 1970, the federal share of extension program costs was 43 percent but in Fiscal Year 1983 it was only 37 percent. The magnitude of problems and the fiscal condition of states and local governments requires more federal support.

The current economic conditions and the farm price situation demand a new level of farm and family financial management. Survival of the farm business as well as the family unit demand a high degree of proficiency in financial management, overall business management, effective enterprise analysis, and risk management in marketing. At the same time, thanks to technological developments, a powerful tool -- the computer -- has become available. The micro-computer can materially enhance managerial proficiency. Perhaps not since the invention of the rubber tractor tire has the opportunity for "improved survival management" and increased farm business efficiency been greater. Substantial shifts in personnel and program resources have been made by the states to capitalize on these developments and assist decision makers in coping with the difficult times. Most state extension services, using primarily state, county and private funds, have been acquiring computer and electronic communications equipment. At the same time, they are in a race to employ, upgrade, and retain staff competent in using the new technology.

National soil and water problems demand more extension program support. The 1982 final report of the National Program for Soil and Water Conservation begins with the following observation:

> "American farmers have an unparalleled record of meeting domestic and foreign demands for agricultural commodities. Over the last 30 years agricultural production has doubled but the ability of American agriculture to continue meeting these demands depends on the nation's ability to protect its soil, water, and related resources."

In response the state extension services have expanded program efforts in minimum till and no-till planting to reduce soil erosion, use of fossil fuels, and costs of production. Those important program shifts have required extensive training of staff, development of new support materials and in many cases additions of substantial equipment for demonstration and teaching purposes.

2) Smith-Lever 3(d)

The 3(d) items represent specific educational program areas that Congress has directed extension to conduct. Their restoration is essential to maintain the momentum of the special efforts, profit from the past investments, and continue extension's capability of addressing changing needs at the local level.

A. Integrated Pest Management

Operational programs using a wide array of research findings have been established during the past five years. With increasing experience and scientific data, the effectiveness of the initial programs continue to grow. Each refinement results in a combination of lower production costs, reduced fossil fuel energy consumption, and less environmental stress. From citrus in Florida, to apples in Michigan, cotton in Texas, and alfalfa in the Northwest, production management has been shifting to a combination of biological and chemical pest control methods. Restoring the Fiscal Year 1983 budget item will ensure continued progress in this important economic and environmental area.

B. Farm Safety

Restoration of the Farm Safety line item will ensure continued attention to reducing the costly food- and agriculture-related accidents. With increased mechanization and greater use of new technology, the nature of accidents and the loss of time, earning capacity and life expectancy has changed. Consequently, a continued effort to maintain a "safety consciousness" is essential to minimize the pain and costs associated with preventable accidents.

C. Urban Gardening

The Urban Gardening program is an answer to the increased concern about declining public understanding of agriculture. The urban garden program enables large numbers of urban residents to experience the risks and efforts associated with the production of food and fiber. Secondary benefits such as contributing to greater community organization and improved family nutritional status may in fact outweigh the economic payoffs from the program. However, with current high rates of underemployment and unemployment, the value of the commodities produced takes on a greater significance in the family budgets and daily menu.

D. Expanded Food and Nutrition Education Program (EFNEP)

Restoration of the food and nutrition education line item to the Fiscal Year 1983 level is essential to enhance the capacity of individuals and families for self reliance. While many types of direct support are being withdrawn, nutritional education assistance to help families is critical to ensure proper nutrition and overall family stability. This is especially important for pregnant women and young children. The mandated national evaluation of EFNEP clearly demonstrates the effectiveness of this program in helping low income families improve their diets.

E. Pesticide Impact Assessment

Restoration of the Pesticide Impact Assessment line item will ensure continued evaluation of important agricultural chemicals. Further, major efforts are underway to speed up access to information on effectiveness, compatibility and proper use. Continuation of the funds will ensure development and refinement of this developing system.

3) Renewable Resources (P.L. 95-306)

The Renewable Resources Extension Act of 1978 recognized the need to help private range and forest land owners increase the productivity of their renewable resources. The technology exists to increase production levels, harvesting efficiencies, and resource management on our forest and range lands. Restoration of the $2 million appropriated for Fiscal Year 1983 with an additional $3 million is imperative to establish effective programs in each of the 50 states and territories. Using appropriation from the two previous years, programs are well underway addressing the priorities determined by participating states. Selection of the priorities occurred through the involvement of local advisory groups benefiting from Resource Planning Act (RPA) and Resources Conservation Act (RCA) activities.

4) 1890 Colleges and Tuskegee Institute

We propose an increase of $3,726,000 to bring appropriations to the percentage target established in the Agriculture and Food Act of 1981. The additional resources are necessary to ensure continuation of the on-going program and to enhance program efforts for primarily small farm and limited resource families.

5) District of Columbia Extension

An increase of $69,000 is proposed to cover increased operating costs and improving the Districts ability to attract and maintain competent staff.

6) Federal Administration

No change from the Executive Budget proposal is recommended. While the direct appropriation for administration will be reduced, additional support for the important program coordination, national program leadership and organizational relationship responsibilities will be provided through the four percent set aside for administration provided under the Smith-Lever formula.

7) Proposed Program Enhancements

A. Integrated Reproductive Management

A new initiative under 3(d) is proposed to bring together existing and emerging technology for the improvement of animal reproductive efficiency. Recommendations of the Users Advisory Board, major animal industry groups, and scientists point to opportunities for substantial increases in agricultural productivity. The proposed IRM program will provide a coordinated systems approach to improving reproductive performance of food producing animals. Because there are numerous possible causes of poor reproductive performance, interdisciplinary research and education teams will center on the interactive effects of disease and suboptimal conditions of nutrition and management on reproductive efficiency. Included will be studies on the role of malnutrition and nutrient deficiencies on infertility, retained placenta, and endocrine dysfunction; the biological chemical and toxicologic causes of early embryonic death, their prevention and control, and the role of microbial agents, hormones, enzymes, nutritional factors and toxins alone or in combination in causing anestrus. The role of infectious and non-infectious factors on poor reproductive performance of the male will be determined and methods will be sought for controlling the venereal transmission of agents causing embryonic death, abortion, and infertility.

B. Aquaculture

Aquaculture has been rapidly expanding during the past decade. Many of the problems limiting further growth and profitability of existing enterprises are similar to other agricultural enterprises and can be addressed with existing technology. There has been a significant amount of relevant information generated by the Fish and Wildlife Service and Sea Grant programs which should be integrated into the extension program and disseminated to the aquaculture industry.

C. Federal Initiatives

The ever-changing clientele and the rapid emergence of new technology dictate continuing attention to the development of new programs and methodologies for delivering information and technology to people. The Extension Committee on Organization and Policy report, Computers in Agriculture, and the recent Extension in the '80s report point to the pervasive need for innovation in programming methodology and utilization of new communications and computer technology to expand extension's ability to address problems of multi-state, regional, national, and even international scope. Such a fund targeted for the purpose of innovation as well as regional and national concerns would encourage the formation of coalitions among the states to bring together the expertise necessary to help people more effectively make national and international policy decisions.

We believe these proposals will enable the food and agriculture sector to sustain continuing growth in productivity and maintain our abundant supply of food. For the consumer, the programs offer a tenfold return on the investment and ensures a continuing abundance of food at the lowest cost in percent of disposable income for any country in the world.

We believe the proposed budget will adequately address such concerns as those expressed in a February 1982 editorial of the American Vegetable Grower magazine. It concluded: "Extension Service has, after all, been evolving continuously over the years, and there is no reason to believe that the need for its function is disappearing. But we see reason for growers to watch current trends carefully and be alert for action if they see threats to the system and the policies of publicly-financed research and extension which has served us so well for more than a century."

Fiscal Year 1984 Budget Request for Cooperative Extension
(In Thousands of Dollars)

Extension	FY1983	Executive Budget	NASULGC Recommendations	Change From '83
Smith-Lever:				
Sections 3b & 3c	230,376	230,376	246,502	16,126[1]
Section 3d:				
Pest Management	7,531	-0-	7,531	-0-
Farm Safety	1,020	-0-	1,020	-0-
Urban Gardening	3,000	-0-	3,000	-0-
EFNEP	60,352	34,821	60,354	-0-
Pesticide Impact Assessment	1,716	-0-	1,716	-0-
PROPOSED PROGRAM ENHANCEMENTS				
Integrated Reproductive Management	-0-	-0-	4,000	4,000[2]
Aquaculture	-0-	-0-	2,000	2,000[3]
New Federal Initiatives	-0-	-0-	2,000	2,000[4]
1890 Colleges and Tuskegee Institute	16,241	16,241	19,967	3,726

Extension	FY1983	Executive Budget	NASULGC Recommendations	Change From '83
Renewable Resources Extension	2,000	-0-	5,000	3,000[5]
D.C. Extension	983	983	1,052	69
Federal Administration	5,433	4,661	4,661	(772)
	328,654	287,082	358,803	30,149

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[1] Maintenance of base extension programs in 3(b) and 3(c) by the addition of seven percent to the Fiscal Year 1983 budget.

[2] In support of extension role to improve reproduction efficiency in food animals.

[3] To apply existing technology for the growth and improved profitability of the aquaculture industry.

[4] To encourage innovation in program methods, accelerate the application of communications and electronic technology for information storage and delivery, and enhance programs addressing multi-state, regional, and national concerns.

[5] To carry out the education component in renewable resources required to support the action programs of the Forest Service in the Resources Planning Act (RPA) and the Soil Conservation Service in the Resources Conservation Act (RCA).

STATEMENT OF RICHARD E. DIERKS, UNIVERSITY OF ILLINOIS

I am pleased to have the opportunity to appear before you and speak in support of agricultural research in general and specifically for animal disease research support as recommended by the National Association of State Universities and Land-Grant Colleges. The nation's agricultural industries have been the major bright spot in our international trade. The fact that our agricultural base and food production systems provide significant income to our balance of trade reflects the research investment of earlier years. For many states, like Illinois which ranks number one among all states in total agricultural exports, the world market is critical to economic recovery.

The Food and Agricultural Act of 1981 has reemphasized the critical importance of maintaining a strong federal-state partnership between the USDA and land-grant institutions. Agricultural research, extension, and delivery of services have prospered in those institutions and stand as testimonies of the positive nature of that partnership. However, a number of recent studies have shown that a consistently smaller percentage of our resources have been devoted to agricultural research for a number of years. We have also seen a leveling of the slope on improvements in agricultural productivity. That must not continue or we will lose the ability to effectively feed ourselves as well as the many hungry nations of the world.

Animal products constitute more than 45 percent (by weight) of the diet consumed by Americans. The relative cash income from livestock production in the nation also accounts for approximately 50 to 52 percent of the total farm income. Grazing animals contribute to the maintenance of natural resources and to the production of food from land that is often unsuitable for cereal or vegetable crop production. Even though the relative use and income from plants and animals is nearly equal, approximately twice as much is being invested in plant research as in animal production and animal disease problems at the present time. Animal health is central to animal production. In the United States, diseases, parasitism, and toxicants are estimated to cause $14 billion in losses per year in farm income from livestock and poultry.

Many of the animal disease problems involve complex relationships with environmental, nutritional, and management factors. Sustained research is needed to develop better diagnostic methods, study hormonal and immune systems, measure responses to biological and chemical agents, and develop new methods to prevent, control, and eliminate diseases. Basic information at the cellular and subcellular level utilizing biochemical, recombinant DNA, monoclonal antibody, bioengineering, and other physical and biological technologies is critical to research on disease control processes.

The capacity and desire to respond to these initiatives already exist in the veterinary medical community. The 1982-83 academic year data indicate that there are 3,371 academic and professional scientific personnel in the 27 schools and colleges of veterinary medicine in the nation. Veterinary science and pathology departments within the state agricultural experiment stations add additional numbers of scientists. These institutions are the primary sites involved in the training of young veterinarians, biologists, and animal scientists and as such are on the cutting edge of new techniques and knowledge required to solve the fundamental problems associated with disease processes. Over the past five years (1978-1982) of the Special Grants Program in animal disease research funding, the nation's colleges of veterinary medicine and departments of veterinary science and animal science have responded by submitting 2,171 grant proposals totalling almost $300 million. Funds were available to fund only 348 of the proposals during that five-year period. That constitutes only 16 percent of the total grants submitted or just under 12 percent of the total funding requested. This is substantially less than any of the pay-out levels for National Institutes of Health programs. National Institutes of Health and National Science Foundations competitive grants programs have attracted many of the most competent veterinary medical scientists. Though most of these investigators would prefer to concentrate on animal disease problems, they lack adequate funding to do so.

The 97th Congress enacted legislation (P. L. 97-98, Agricultural and Food Act of 1981) which authorized $25 million annually for animal health disease formula funding (Secton 1433) and increased the authorization level from $15 million to $35 million in Section 1434 for competitive grants to address animal disease resesarch of regional and national importance. It is critical that formula funding in Section 1433 and competitive funding in Section 1434 be added to the Animal Disease Special Grants funds supported in the Executive budget of the USDA in order to provide sustained programs in animal disease research in each of the institutions.

USDA testimony associated with the 1984 Executive budget indicated that the level of appropriated federal formula funds under Section 1433 has not been adequate to support a viable program in many of the eligible institutions; therefore, it was proposed for elimination. Indeed, it is a relatively small amount of funding, but it has been critical in maintaining a continuous thrust in animal disease research in conjunction with other research funding in the recipient institutions. The University of Illinois College of Veterinary Medicine has received between $170,000 and $200,000 annually in Section 1433 funding appropriated by Congress over each of the past five years. This funding constitutes approximately 5 percent of our College's total research funding. It has, however, provided a central underwriting programmatic thrust in several important areas that have then been supplemented by competitive grants from a variety of sources to create excellent programs resulting in major contributions toward resolution of specific animal disease problems. The programmatic importance of Section 1433 funding has been far greater than its actual dollar value because of its continuous support which has allowed personnel stability in specific programs between gaps in competitive funding. Without that support, specific projects would have been eliminated several times during lapses in competitive funding. This concept is particularly true in those veterinary schools and colleges that do not participate collaboratively in Hatch or other Agricultural Experiment Station funding.

There is no question of the interest and desire of veterinary scientists to participate effectively in animal disease research. The research capacity is in place to effectively address both basic and applied research requirements needed to lower animal disease losses. This system can be made highly productive given reasonable levels of continuing support. It is the best system available to assure a continuing supply of well-trained, young scientists to address animal health and disease problems in both university and federal research laboratories now and in the future. Funds have been appropriated as formula (Section 1433) funds and special grants (1414C) funds as follows:

(in millions of dollars)

	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	Executive Proposal FY 1984
Formula Funds (Section 1433)	$ 5.0	$ 6.0	$ 6.5	$ 5.76	$ 5.76	-0-
Special Grants (competitive 1414C)	10.0	7.0	5.05	7.156	7.156	7.156
Totals	$15.0 M	$13.0 M	$11.55 M	$12.916 M	$12.916 M	$7.156 M

	(in millions of dollars) FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	Executive Proposal FY 1984
Inflation Rate (Consumer Price Index)	12.3%	12.6%	9.4%	4.5%		

When reductions in appropriations and inflationary losses are taken into account, animal disease research support under these two programs has been reduced in purchasing power to a level of approximately 50 percent of that provided in FY 1979 when the program was started. In order to reverse this trend and provide a modest increase in support for animal disease research in the CSRS budget, the following recommendations are being made for FY 1984 funding:

1. $8.0 million for formula funding authorized by Section 1433.
2. $4.0 million for competitive grants directed to regional and national animal disease problems authorized by Section 1434.
3. $7.156 million in special grants as recommended in the USDA Executive budget.

Also supported is the provision of $10 million for competitive graduate fellowships and $4.5 million in competitive research grants to establish a new program in animal research directed at reproductive problems.

The animal health and disease research program has been inadequately funded. Approximately 20 percent of the income from livestock and poultry products is lost annually to animal diseases of all types. The research support requested is a very small percentage of the estimated $14 billion loss per year. The funds requested are imperative in creating a critical focus to both address animal disease problems and assist in the training of veterinary scientists in disciplines with acute manpower shortages in order to fulfill agricultural research needs of the future.

I thank you for allowing me to enter this testimony in support of the NASULGC position on the FY 1984 USDA budget.

Statement of D. F. Crossan, University of Delaware

Importance of Agricultural Research to the Nation's Economy

Agricultural research is intended to maximize the economic benefits of agriculture to the nation; particularly in the long term as well as the more foreseeable future. The food and fiber produced in the United States is critical to the well-being of the people of this country and others throughout the world. The position of eminence maintained by the United States in agricultural science places this country in a unique position as a world power capable of providing most of its own food and fiber needs. Agricultural research also places this country in a position of leadership, as a source of technology essential for the developing nations of the world.

The State Sector in the Agriculture Research System

The State Agricultural Experiment Stations, located where agriculture starts, and food and food precursors are grown, are the important decentralized portion of the nation's agricultural research system. Most of the resources for state research activities are provided by the individual states. Those dollars provided by the federal government ensure a coordinated national program, the maintenance of a broad network capable of meeting agricultural crises, and an interaction with all federal research and regulatory agencies. The United States Congress made clear its understanding of the importance of federal support for state Agricultural Experiment Stations in the 1981 Agriculture and Food Act. The state-federal partnership is a well-documented success story. The rates of return to the government and to the public from the state and federal funding investments in the magnitude of 30 to 50 percent are part of that story.

How to Maintain Agricultural Productivity and Efficiency

How do we maintain agricultural productivity efficiency, and a quality environment in the face of higher production costs, diminished energy supplied, complicated international trade and competition, crucial balances in natural resource conservation and utilization, an expanding population, and a decreasing number of agricultural production experts?

We do it by increasing the quality of our research, extension, and teaching programs in land-grant, non-land-grant, and private institutions throughout the country. We do it through an increase in the quality and quantity of science in agriculture. We do it through an increase in the federal budget that supports the most successful scientific endeavor the world has ever known.

Recommendation

The Experiment Station Committee on Organization and Policy (ESCOP) has examined the Executive FY84 Budget Proposal for the USDA-CSRS and is of the opinion that changes to the recommendations are imperative if the State Experiment Stations and cooperating agencies are to meet their responsibilities under the law to help sustain and improve the vitality of our country's agricultural system. Our recommendations are complementary to and in agreement with the funding recommendations of the National Association of State Universities and Land-Grant Colleges.

To face new challenges and capitalize on the opportunities that will carry us through the crises that lie ahead, the Experiment Station Committee on Policy urges the United States Congress and the Executive Branch to support a 9.0 percent increase in the 1984 budget for federal support of state and federal agricultural research programs. This increase, from $245.8 million in fiscal '83 to a proposed $268.9 million in 1984, would be accomplished as follows:

1. A seven percent increase in the base programs, to $197 million. These include the Hatch Act (+$10.5 million), McIntire-Stennis Act (+$0.9 million), and 1890 and Tuskegee Research (+$1.6 million).
2. Restoration of the $5.8 million funding level for Animal Health Research with an addition of $2.2 million to the Section 1433 Program plus $4 million for Section 1434.
3. An increase in competitive grants to $21.5 million, as recommended in the Executive Budget.
4. The same level of funding for special grants as in the fiscal '83 budget -- $26.5 million.
5. The same level of funding for alcohol fuel and native latex research as in '83 -- $1.2 million.

6. The same level of funding for 1890 facilities as recommended in the Exectuive Budge -- $10 million.

JUSTIFICATION

1. Base funding: $197,031,000

The central component of federal base support -- formula funds through Hatch, McIntire-Stennis, 1890's, and Tuskegee -- coupled with a much larger commitment by state governments, provides the resources for site-specific research and for meeting emergency needs within states. An increase in this base funding is essential to help meet rising costs of continuing programs in mission-oriented research.

As agriculture becomes more productive, a higher proportion of the research effort must be utilized to maintain the higher levels. Disease-resistant varieties of field crops, for example, must be replaced about every five years to counteract biological changes; and regulatory actions may require development of alternatives to banned pesticides. Such research involves basic investigations as well as research directed to short-term needs.

The Joint Council on Food and Agricultural Sciences has indicated specific areas needing national emphasis. The Hatch formula funds provide a major capability to address those areas of research. Fundamental research to solve long-term problems and to lessen the effects of natural forces on agriculture is needed to investigate the basic physical, chemical, biological, and economic processes governing soil productivity and the growth and adaptability of plants and animals. For example, if the soybean plant were as efficient as the corn plant, soybean yields would double. Fundamental research in the eighties is needed to provide the foundation for the applied research of the nineties. The knowledge gained from this work will provide the basis for agricultural production in the 21st century.

The State Agricultural Experiment Stations devote about 37 percent of their scientific resources to basic research or the equivalent of over 2600 scientist-years. This represents a cost that is over twice the total Hatch appropriation. Many of the needs for basic research arise from inabilities to solve important agricultural problems through applied research alone. We are proposing increases in Hatch support for basic research to maintain the current levels of basic research and to expand basic research where information on fundamental processes are most needed. The increases are calculated only on the federal share of the current investment. Knowledge is needed to improve forest resource management and expand the use of conservation tillage; to develop an erosion/soil productivity model that is more useful to farmers and land managers; especially through application and rescheduling techniques; to identify timber harvesting practices that have fewer adverse effects on the forest resource base; and to find adaptable grazing systems and management practices that improve range conditions. The main purposes of conservation research are: (1) to improve use of natural resources for agricultural production and (2) to slow their regression and prevent that regression from cancelling the effects of other techniques to increase productivity.

Major advances have been made in plant, animal, and forestry production efficiency in the past 40 years. However, projections show that the rate of productivity growth must increase soon if food, fiber, and forestry products are to be adequate in the next century. Multidisiciplinary research approaches that integrate a broad spectrum of talents can help find those productivity improvements. Priority strategies for improving plant productivity include using genetic means, which encompass all technical and scientific approaches that offer the promise of practical improvement of plants; reducing post-harvest losses caused by diseases and pests; and increasing the efficiency of cultural and crop management practices from planting to harvesting.

2. Animal Health Research: $12,000,000

The animal health research program has never been funded commensurate with need. The $12 million recommended, which is the same as current annual losses to health-related problems, will provide the funds needed to implement strategies for increasing productivity of farm animals by controlling diseases and pests, improving efficiency of feed utilization and nutrition, better utilizing the genetic capabilities of animal germplasm, and better management practices. This program will make possible the necessary concentration and persistence of scientists required to solve complex animal health problems.

There are two important components special to this section: (1) the need for a continuing base of support for animal health research and (2) the special need for this authority. The first factor can be taken care of by fitting the appropriation process to legislative intent. Until a consistent minimum level of federal support is established, states are naturally reluctant to commit long-term resources to the program. Unfortunately, this authority is considered to be a "new program each year, particularly in the Executive Budget process. The second factor recognizes that some states have made extraordinary commitments to animal health research, deliberately to serve animal health needs of several states. Since transfers of funds among states is politically difficult, if not practically impossible, a federal investment in animal health research is necessary to compensate for the multi-state benefits.

3. Competitive grants: $21,500,000

We support the competitive grants program in basic research that currently supports about 133 scientist years, about half of whom are in the State Agricultural Experiment Stations. That program, which attracts some scientists outside of the agricultural research system is a small but valuable complement to the base programs of research in the state stations and in the Agricultural Research Service. We also support the proposal to initiate a program directed to research on fundamental phenomena important to animal agriculture.

4. Special grants: $26,500,000

The special research grant program is designed to provide accelerated solutions to high-priority food and agricultural problems specific to a region or state. Colleges and universities with food and agricultural research capability are eligible for these grants. Recipients are responsible for carrying out specific research assignments mutually agreed upon with the U.S. Department of Agriculture. Special research grants are often made to cover research of several years' duration. Therefore, it is important that projects in the fiscal '83 budget carry forward into fiscal '84 at least the same level of funding as in the current budget.

5. Alcohol fuel and native latex research: $1,242,000

This is a relatively small, but important, item. Even though there has been a relaxation in fuel costs recently, we must continue to develop alternative fuels to be prepared for future shortages of petroleum.

6. 1890 facilities: $10,000,000

This special appropriation will help equip the 1890 colleges to continue their long history of close cooperation with land-grant universities in the conduct of research.

CONCLUSION

Secretary of Agriculture John Block has placed high priority on research and education. Our land-grant institutions, in cooperation with the U.S. Department of Agriculture, constitute a unique knowledge system, which is the foundation of American agriculture's productivity and efficiency. For the State Agricultural Experiment Station system to adequately address the challenges noted above, there must be an increase in the formula funds allocated to the states. It is imperative that this system be maintained and strengthened. We earnestly solicit the support of the Appropriations Committee, and urge affirmative action on our budget recommendations.

STATEMENT OF RICHARD SKOK, UNIVERSITY OF MINNESOTA

I am Richard Skok, Dean of the College of Forestry at the University of Minnesota. I am here today representing the National Association of Professional Forestry Schools and Colleges (NAPFSC).

NAPFSC represents forest research programs at the 60 eligible state colleges and universities participating in the federally funded McIntire-Stennis Cooperative Forestry Research program. We are an affiliated organization in the Division of Agriculture of the National Association of State Universities and Land Grant Colleges (NASULGC). NAPFSC is the successor to the Association of College and University Forest Research Organizations (ASCUFRO).

While the severe depression which has gripped the forest products industry in recent years has largely been due to factors external to the industry, it has cruelly demonstrated the necessity for the forestry community to broaden the knowledge base upon which its decisions are made. For example, there is now broad debate about the inadequacy of traditional information on trends in supply and demand which have guided industrial, trade and public forest policy for several decades. Nor is the basis for the significant gains in our domestic market by Canadian lumber producers understood. Impartial analysis of supply/demand relationships and marketing relationships are needed to provide a more definitive base for forest-based industrial and trade policies. This analysis must be done in a truly global context if the outcomes are to assist the nation in building a competitive advantage in marketing its valuable forest products. The uncertainty about the adequacy of regional, national, and international supply and demand relationships reinforces the need to develop new technology to improve the economic efficiency of forest production.

Forests and associated rangelands are also significant factors in the production of water and the protection of soil productivity from erosive forces. Research on forest and range watersheds can provide the answers needed to solve problems of water scarcity in the West, problems which are rapidly emerging in the East and South.

The early progress in biotechnology research is now contributing to scientific capital that can permit the acceleration of the rate of genetic improvement of forest trees and range plants, and the extension of supply through improvements in processing technology. For example, there is evidence that new techniques could double the value added from investments in conventional techniques of tree improvement with selected species.

A number of states, including Mississippi, Minnesota, and Michigan, are currently investigating the potential role of our forests and forest-based industry in diversifying the income and employment base of local economies. One outcome is an awareness of the potential for increasing the economic contribution of this asset through the development of new technology in wood processing and wood-based chemical derivatives.

Clearly, our forest assets are of enormous importance to the economic and environmental welfare of this country and deserve an appropriate level of public interest and commitment.

The McIntire-Stennis Act of 1962 provides a solid base for the cooperative state-federal partnership in assuring an adequate technological base for our use of the asset. Federal research funds are matched at the state level, currently on a ratio of approximately 1:4. The Act also provides for the coordination of forest and rangeland research among the states, and between the states and the U. S. Forest Service.

While many forestry research problems can be fully addressed only in their national context, there are few "national" solutions. Most of the research undertaken on important problems in forests and associated rangelands must reflect the geographical diversity among the regions. The cooperating universities and the U. S. Forest Service, working with the Cooperative State Research Service, have recently completed a major assessment of regional research priorities for this decade - priorities that were developed within a national context. Just two months ago, a national task force on basic research in forestry and natural resources published an analysis of basic research needs that could result in greater contributions to our economic and environmental well-being from the nation's forests and other renewable natural resources.

The task force concluded that emphasis on five primary areas of scientific inquiry could avert the depleted technological storehouse and knowledge base that is forecast under "status quo" conditions. Additional investments by federal, state, and industrial sources should be applied to basic biology, ecological processes, engineering and materials sciences, economic and consumer benefits, and managerial sciences. Our member institutions and the U. S. Forest Service have a demonstrated record of response to these challenges, and efforts are currently underway to include more involvement from the industrial sector in the selection of specific priorities and in the conduct of critical research.

About 800 university scientists are now involved in forest science, and the potential for attracting other scientists to urgent natural resource problems is excellent. McIntire-Stennis funding also supports the development of about 600 graduate students each year. Even so, there is additional need for scientists in certain areas, including forest economics, harvesting, and wood utilization. The graduate fellowship program to develop scientific and professional expertise in food and agriculture as now proposed by NASULGC would help meet these needs.

We support the seven percent increase proposed by NASULGC for McIntire-Stennis funding in FY 1983. This level ($13,324,000) would enable us to sustain the existing program level amid rising costs, and permit new initiatives in selected areas.

The 1984 Budget Summary for USDA proposes a further decline in the research budget for the U. S. Forest Service. This proposed reduction will slow the pace of technology development for forestry and associated rangelands. These declines will also affect the ability of the Forest Service to continue its present share of cooperative extra-mural research funding with the universities and industry in high priority areas. This occurs at a time when most research cooperators are unable to offset the shortages from local sources. Almost one-third of the total 1982 funding for wood utilization research at universities in the southern region came from this source.

Once again the Executive Budget has omitted funding for the Renewable Resources Extension Act. This setback comes just as the first provisions of the Act are being implemented. NAPFSC strongly urges your support for a five million dollar appropriation for 1984. This will permit the continued funding of present efforts and funding for other provisions of the Act.

We recognize the continued stress on the federal budget. At the same time we are optimistic about the contribution that the forests and associated rangelands can make to the economic strength of this country. A recent study in my state indicates that a 25 percent increase in production and processing of forest products would triple the value added from the forest asset. There are obviously several challenges to the achievement of this potential. Among the most critical are adequate investments for technology development, for knowledge creation, and for building the nation's human capital to meet tomorrow's needs.

We ask your support in addressing these needs in the fiscal 1984 Executive Budget and appreciate this opportunity to share our views with you.

STATEMENT OF DR. MALCOLM J. PURVIS, UNIVERSITY OF MINNESOTA

This statement speaks to the international dimension of the Federal/ State relationship in Agricultural Teaching, Research and Extension and in particular to the funding of activities under the Office of International Cooperation and Development (OICD) in USDA.

The 1981 Agriculture and Food Act in section 1458 contained new authorization for the USDA to work with the land grant universities in matters of scientific research, extension and training in both developed and less developed countries. The Act recognizes that such activities "serve the purpose of agriculture and the economy of the United States and make a substantial contribution to the cause of improved food and agricultural progress throughout the world".

The international nature of American agriculture and of the science that sustains its productivity has never been more obvious than today. U.S. Agriculture is a winner - but it cannot stay a winner if it does not scout the opposition and play in the competitive international league of high science and technology. The Land Grant Universities have a major role in training the future scientists and leaders of America's international agriculture and in providing new sources of productivity growth to the U.S. agricultural industry - but cannot do this by ignoring the rest of the world. To the countrary we must now in partnership with USDA aggressively build an international dimension to our long standing and historically productive federal-state partnership.

University Linkages Program

One of the only items included in the USDA request for the implementation of this need and of the 1981 ACT was an amount of $250,000 in the OICD budget for a University linkages program with so called middle income countries (many of them graduates from our foreign AID programs of the past). This item was reduced to $150,000 by the President's budget proposal. We urge that the full $250,000 for the University linkages program be restored. The U.S. Land Grant Universities and the U.S. Department of Agriculture are assisting the Agency for International Development, through the Title XII Program in developing countries. However the middle income and developed countries are of course outside our AID program. There is a great need to support the reestablishment of linkages and to develop new linkages to agricultural institutions in these middle income countries. Agricultural science has as its primary objective maintaining the competitive productivity of the American farmer and provision of low cost food to consumers at home and abroad. International exchanges are a stimulus to new ideas and a cost of obtaining new sources of productivity necessary to the maintenance of U.S. agriculture as a competitive industry in world markets. Although this is a small item in the USDA budget it is the principal vehicle for implementing the new language in the 1981 Agriculture and Food Act on the international dimension of the Federal/State relationship.

Special Foreign Currency Program

I would also draw the committee's attention to the activities of OICD under the heading of Scientific Activities Overseas (Foreign Currency Research). This activity is funded by the use of U.S. owned PL480 counterpart funds and their expenditure, as agreed by OMB, do not represent any further drain on the U.S. budget. The request for $6.1 million is double the $3.0 million available in FY 83 - however, this is not a real increase but reflects the lack of an appropriation in FY 82. The special foreign currency program is a most effective use of these U.S. owned funds. It permits significant collaborative and mutually beneficial research with university colleagues overseas and contributes to the realization of technological advancement of U. S. agriculture.

Other Programs

I would also take this opportunity to draw the committee's attention to the cuts proposed in the President's budget in International Education which would eliminate Title VI and the Fulbright Hays program. U.S. Agriculture is an international industry. It is carrying much of the burden of the U.S. balance of payments. Farming incomes are depressed because of conditions in world markets. Our teaching programs have to prepare the future leaders of U.S. agriculture for a complex international world of the 21st Century. These cuts in the International Education activities are detrimental not only to the U.S. ability to survive in an international world but directly to its leading export industry - agriculture. We urge that these programs be maintained.

STATEMENT OF DR. SIDNEY H. EVANS, NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY

Mr. Chairman and members of the committee, I am Sidney H. Evans, Research Director for Agricultural Research at North Carolina A&T State University. It is a pleasure for me to appear before you this afternoon on behalf of the Agricultural Research Program, in general, and the 1890's and Tuskegee programs in particular for both of which I urge your support of the FY'84 budget as presented.

The 1890 Institutions are inextricably woven into the educational and research fabric of the American society. They continue to serve a unique clientele from the standpoint of disadvantaged youth, small and limited resource farms and poor communities. Our ability to train students who later enter graduate school, the world of work, become scientists and compete favorably with students from the larger, more prestigious schools is well documented. Our research thrust which is the third leg of support for the Land-Grant system is a relatively new experience for the 1890's. Even though the 1890 amendment to the Morrill Act of 1862 gave these schools land-grant status, nearly 80 years passed before funds were provided for them to conduct research in the Food and Agricultural Sciences. Under the present system, all of our research funds come from congressional appropriations as we have no state support for research. Therefore, our current level of funding plus nominal increases on an annual basis is a minimum necessity to do the job that our supporters have a right to expect.

The 1890's and Tuskegee research programs which started appreciably in 1972 under Public Law 89-106 legislation have grown considerably notwithstanding the lack of adequate facilities and a relatively low initial funding base. The Facility Bill appropriation is a commendable effort in overcoming past omissions and neglect of this important sub-group of the Land-Grant system. The continuation of this appropriation as designed by Congress in the 1981 amendment to the Farm Bill of 1977, will allow these Institutions to more effectively concentrate their annual funds on conducting research as opposed to having to share them for the acquisition of basic research facilities and equipment. We cherish the day when these Institutions will not have to plead for special consideration, but rather, that our appropriations will be automatic along with our 1862 counterparts in each respective state.

At the risk of an imposition with respect to time, I would like to focus very briefly on the progress the 1890 Institutions and Tuskegee have made during the past 12 to 15 years of receiving Federal support for their research programs and how these research programs are being carried out collaboratively with the 1662's at the local, regional and national levels.

First, the areas of research concentration have been but currently are shifting from applied and empirical to more basic and pure research; the latter a more high risk research directed at long-range results and benefits.

Currently, there are over 200 scientists conducting research in the 17 Institutions. The 1890's have traditionally contributed to the solution of problems of limited resource operators, both through research and extension. Our expertise has been exemplified in small farm and family farm research and the development of the rural community. With the acquisition of more and better facilities and larger annual funding base, the research programs of the 1890's and Tuskegee are developing into more basic research in plant and animal genetics, animal physiology, food science, human nutrition, soil, water and energy research to name a few.

An increasing amount of our research is being done in collaboration with the 1862 Institutions on the local, regional, and national levels as earlier stated. Regional projects have been developed in small farm research, poverty research, low income housing, soybean research and a project is currently being developed to attack the imbalance between the supply and demand of agricultural scientists. Further the 1890's need to increase their research in such areas as the dynamics of soil, plant and water systems research, to better understand the metabolic aspects of hormones in relation to plant growth and development, animal health and protection, human nutrition, market systems (domestic and foreign) and the application of electronic technology.

Our enthusiasm is high, our efforts are diligent and sincere and our competency to do scientific research is improving. We are soliciting the committees support of the 1890's and Tuskegee research programs to enable us to continue to build on the solid foundation that has been established over the past decade by Congress, USDA and other supporting agencies. Continued funding at an acceptable level is necessary for the 1890's to join hands with the 1862's in providing a balanced attack on agricultural research problems both home and abroad.

We appreciate the support that your committee has given agriculture in the past, by providing leadership and influence in Congress to support research, extension and resident instructions. We urge you to continue these efforts for the Land-Grant system in general and its sub-group counterpart--the 1890's and Tuskegee.

STATEMENT OF DR. GENE M. LOVE, PENNSYLVANIA STATE UNIVERSITY

Mr. Chairman, members of the Senate Subcommittee on Agricultural Appropriations, it is an honor and a privilege to appear before your Committee today. The responsibilities of this Committee are difficult even in the best of economic times -- and these are not the best of economic times. You are faced with the enormous task of conserving scarce national financial resources while, at the same time, ensuring the welfare of the citizens of the country.

My purpose today is to alert you to a critical national problem which, left unresolved, will eventually have a disasterous effect on the welfare of every American citizen. I am speaking of the current shortage of human agricultural expertise in higher education. A 1980 USDA study has pointed out that there will be an annual shortfall of 13 percent of qualified graduates needed to fill the scientific, professional, and managerial positions in agriculture. The shortfall ranges as high as 30 percent in certain areas of critical need. The area of greatest need is for graduates with advanced degrees, especially doctoral degrees where 36 percent of the 1981 U.S. doctoral degrees in food and agricultural sciences were awarded to foreign students.

The shortage of human expertise is further compounded by the fact that undergraduate enrollments in agriculture have declined 16 percent nationally since 1980. More recently, graduate enrollments have decreased. The situation gets progressively worse in light of the fact that, (1) the number of 18 year-olds in the population will have decreased by 25 percent between 1978 and 1992, and (2) colleges and universities will retire and replace as many as a third of their faculty (hired following WW II) during the next four years. Collectively, these facts point to a serious educational problem which translates into a serious technological problem later in this decade. The ultimate consequence will be greater pressure on the American farmer and higher food prices for the American consumer.

It is significant to note that total agricultural output has more than doubled in the past 50 years due to new technology. As a result, Americans spend less than 17 percent of the family income on food. The means by which the U.S. has been able to keep food prices so low is one of the truly great and continuing technological success stories of all times.

Without the continued flow of new technology, these positive agricultural trends cannot continue. Without the continued flow of new agricultural scientists, the flow of new technology will be seriously effected.

Something must be done to attract highly qualified prospective students into undergraduate and graduate agricultural and life science majors. The Resident Instruction Committee on Organization and Policy urges this Senate Committee to appropriate $10 million dollars for graduate fellowships. This is less than one percent of the total U.S.D.A. budget. The fellowships will help stem the decline in graduate enrollments and at the same time help secure America's base of human agricultural expertise.

During the past year the Resident Instruction Committee on Organization and Policy has held meetings throughout America. Attention has been called to the critical need for human agricultural expertise. These meetings have been attended by representatives of agricultural industry, by citizens in general, and by members of government and education. I can tell you that there is widespread concern. I believe it is fair to say that there is essentially unanimous support for the appropriation of federal funds for graduate fellowships to help resolve this national problem. Very frankly, I know of no other single item in the 1984 federal budget that has greater long-range significance than the $10 million requested for graduate fellowship grants. Your help in adding this amount to the already existing $500,000 in the Agricultural Research Service portion of the U.S.D.A. budget not only will be greatly appreciated and supported by many people but also will be consistent with previous actions of the Committee, i.e., in the past this Committee has admonished the Department of Agriculture that it has a federal responsibility to serve as the lead agency for higher education.

Thank you!

HUMAN CAPITAL SHORTAGES: A THREAT TO AMERICAN AGRICULTURE

Executive Summary

Agricultural expertise is vital to the security and well-being of this country. The United States cannot continue as the lead nation in agriculture without new efforts for the development of its human capital, the ultimate resource.

American Agriculture—some 20 percent of our nation's gross national product—is seriously threatened by deepening shortages of highly qualified scientists, managers, and technical professionals. Particularly critical are shortages, predicted during the next 10 to 15 years, of individuals with masters and doctoral degrees in high technology agricultural disciplines. The U.S. agricultural system, which increasingly integrates advanced technologies and an intensive capital investment structure, will deteriorate unless positive actions occur.

Major problems influencing the development of agricultural expertise include:

- Scientific literacy exhibited by students entering our colleges and universities has declined dramatically during the past decade. For the first time in our nation's history, high school graduates are less prepared in the fundamental sciences than their parents.
- Some 25 percent fewer individuals will constitute the traditional college-age population during the coming decade. Without attention, significantly fewer students will prepare for scientific, managerial, and technical careers in agriculture. Enrollments in colleges of agriculture already have declined by 15 percent during the past four years.
- Unusually high numbers of agricultural scientists and educators who began their careers shortly after World War II will retire during the next decade. Replacements are simply unavailable in many specialties.
- Colleges of agriculture have experienced a serious deterioration of their capacity to educate highly qualified agricultural scientists and professionals. Inadequate investments for faculty, facilities, and equipment have seriously eroded program quality requisites for preparing students for highly technological positions in agriculture.

Specific actions must be initiated by public (federal and state) and private decision-makers to assure an adequate agricultural expertise base. Colleges and universities, industry, state governments, and the United States Department of Agriculture must share in efforts to generate the needed human capital.

- Increased resources must be directed to attracting the brightest and best students for undergraduate and graduate preparation in the food and agricultural sciences. Incentives must be provided to give a competitive edge in securing individuals in areas identified as having the greatest impending shortages.

- National and state priorities must be set to direct additional resources toward strengthening the higher education programs in colleges of agriculture. Universities must consider redirection of resources to further this strengthening for the faculties, facilities, and equipment required for the development of the needed agricultural expertise. Expanded emphasis must be given to sharing resources of industry, government, and universities to provide the requisite conditions for formal preparation in this complex and highly sophisticated area of higher education.

- A national information system for forecasting agriculture and natural resource human capital requirements must be developed and maintained. The state/federal partnership assigning USDA as the lead federal agency for higher education in agriculture must be clearly established. USDA must assume a strong commitment for this partnership.

The United States must not relinquish its leadership role in agriculture by failing to invest in its ultimate resource—

human capital.

Agriculture is economically and strategically important to America

American agriculture.

The words evoke an image of rich abundance and economic importance. America's food and agricultural industry continues as a mainstay in the U.S. economy, accounting for 20 percent of the gross national product, 23 percent of the jobs in this country, and 19 percent of export earnings.

The net trade surplus of the U.S. agricultural sector totaled $26.6 billion in 1981. This compared to a U.S. nonagricultural trade deficit of more than $60 billion.

The impact of agriculture on U.S. international trade is not new. It has been true over the last decade when large agricultural trade surpluses were crucial in reducing the deficit in our trade balance and strengthening the American dollar.

U.S. farm output has increased by more than two and one-half times during the past 50 years while farmers are using six percent fewer acres. This increase was achieved, to a great extent, because of the productive efforts of our nation's scientists and educators.

In effect, every dollar earned by U.S. agriculture and agribusiness is more than doubled as it flows through the American economy. The economic benefits of U.S. agriculture extend far beyond the farm, the traditional focus in the public identification of agriculture. American agriculture is a major cornerstone for the high standard of living in the United States, for our national security, and for the U.S. position as a world leader.

The heartbeat of American agriculture is its people. Individuals are engaged in diverse and dynamic agricultural positions in business, communications, science, government services, education, production, processing, and marketing. Agriculture requires people with academic preparation in chemistry, engineering, ecology, forestry, microbiology, mineralogy, genetics, nutrition, animal science, biology, pathology, soil conservation, hydrology, horticulture, market analysis, financial management, virology, agronomy, statistics, bacteriology, salesmanship, product development, and veterinary medicine—to name but a fraction.

The ability of American agriculture to continue to provide ample supplies of food, fiber, and forest products depends upon many physical and human variables. Present agricultural abundance resulting in temporary surpluses clouds the fact that producing an adequate supply of food is never guaranteed.

Agriculture is a biological process which is influenced by such vagaries of nature as weather, disease, pests, soil fertility, and water. A sizeable land base suitable for food and forest production, favorable climate, and economic incentives to producers and distributors are all essential. However, the most crucial variable in the food equation of the future is the human capital which must continually strengthen and manage the highly technical and delicately integrated production, distribution, and marketing system.

Human capital shortages threaten American agriculture

The nation's agricultural system is increasingly based upon high technology and an intensive capital investment structure. Concurrently, there is growing evidence of deficits of college-educated agricultural scientists, technical representatives, educators, administrators, producers, managers, financial advisers, and other professionals in both the public and private sectors.

A 1980 U.S. Department of Agriculture study projects the overall average annual demand for college graduates with expertise in the food and agricultural sciences to exceed the available supply by 13 percent. In some occupational categories, however, the shortages are far more severe. Demand for manufacturing and processing scientists and engineers exceeds supply by 18 percent, and demand for agricultural administrators, managers, and financial advisers exceeds the supply by 30 percent. This USDA study may understate the severity of the problem. An especially short supply of individuals with advanced preparation—master's and doctoral degrees—is expected to be available for required research, professional, and managerial positions in agriculture throughout the decade.

Growing agricultural expertise shortages clearly emerge as evidence that the days of a bountiful U.S. agriculture are not guaranteed indefinitely. These shortages are signs of failing health and they signal adverse effects on the phenomenal level of success American agriculture has achieved over the past 50 years.

America's market share in electronics and automobiles has been severely eroded during the past decade. Much of this loss is the result of relatively reduced investments in science and technology. Likewise, U.S. agriculture's leadership in the world community is threatened unless adequate investments are made now to ensure the requisite human capital base for the future. The past investment in agricultural expertise has permitted agricultural productivity to have a higher output per unit of input than the nonfarm business sector.

That edge of productivity can be lost.

U.S. Colleges of Agriculture: The major generator of agricultural expertise

The nation's agricultural colleges are the predominant producers of scientists, professionals, and managers with agricultural expertise. They offer the greatest potential for the future development of agricultural mindpower.

The U.S. Department of Agriculture reports that more than 59,000 university and college graduates in the food and agricultural sciences—agriculture, natural resources, veterinary medicine, and related fields—are required annually to fulfill the scientific, professional, and managerial positions. Currently, U.S. colleges of agriculture and natural resources produce slightly more than 65 percent of the needed graduates with food and agricultural expertise. Some 22 percent of available positions are filled by individuals with college degrees in biology, economics, business, and other disciplines which are closely related to agriculture. The remaining 13 percent of the openings are staffed with less than qualified individuals or remain vacant.

Focusing at the graduate degree levels, land-grant and non land-grant colleges of agriculture contribute more than 90 percent of the national base of high technology agricultural expertise. These public and private sector individuals are employed as agricultural scientists, technical representatives, managers, administrators, engineers, financial advisers, extension specialists, agricultural educators, and USDA professionals.

Within our colleges of agriculture, there is a dynamic capacity to educate undergraduate and graduate students as an integral part of the teaching/research missions. Current curricula range widely to embrace high technology agriculture and intensive capital management. They encompass subjects such as bioengineering, agricultural finance, computer technology, food science, integrated pest management, international agricultural marketing, and integrated reproductive management of livestock—all far different from stereotyped images of "production-based" agricultural curricula. The classification of instructional programs by the U.S. Department of Education documents some 75 degree specialties which are offered by our nation's colleges of agriculture.

Serious agricultural expertise development problems must be solved

There are very serious and escalating problems which must be solved if we are to develop the requisite agricultural human capital for a strategic and sustainable U.S. agriculture. Among the more important challenges are the following:

- Agriculture like other scientific and technical disciplines must compete for the limited number of students who acquire adequate scientific preparation in the secondary schools. Skills and aptitudes needed for the development of productive agricultural professionals generally match those required in engineering, molecular biology, health sciences, computer science, and business.

Insufficient preparation of entering college students is a serious problem in developing needed agricultural expertise. Data published by the National Academy of Sciences in 1982 show that of the approximately 2.9 million high school graduates, about one-third have completed three years of mathematics, and only one-fifth have completed three years of science. Only 10 percent have taken a course in physics and fewer than that—eight percent—have completed a unit of calculus.

- The agricultural expertise development problem is further intensified by the fact that fewer individuals comprise the traditional college-age group. Current demographic factors show that 25 percent fewer people will constitute the traditional college-age range over the next 10 years. This implies that fewer students will be in colleges of agriculture, where enrollments already have declined by some 15 percent over the past four years.

- There are deepening deficits of qualified university faculty members and industry scientists in an increasing number of agriculture and natural resources disciplines. These shortages are heightened by poor economic conditions and abnormally high retirement ratios.

An unusually high proportion of current agricultural scientists and educators began their careers shortly after World War II. These individuals will retire during the next five to 10 years. Some segments of the U.S. agricultural industry forecast a similar pattern. Replacements simply will not be available in many specialties.

The "marketplace" adjustment of supply is imperfect, and strong competition for highly capable students completing their B.S. degrees forces a need for development plans to avoid periods of critical shortages of these agricultural scientists and educators.

- The American Council on Education reports that during the period of the 70s appropriations to higher education lagged at an annual rate of approximately two percentage points below the rate of growth in gross national product. This has contributed to the eroded base for higher education in agriculture.

- The evergrowing need for agricultural expertise in the world's less developed countries depends mightily on the U.S. capacity to provide the education required to deal with this deficiency. Some 36 percent of the 1981 U.S. doctoral degrees in the food and agricultural sciences were awarded to individuals from other nations.

These current trends and conditions forecast serious problems in the future development of college graduates who will be required to maintain a highly reliable and efficient U.S. agricultural system. The United States cannot continue as the lead nation in resolving food production and distribution problems associated with an expanding global population unless support for agricultural higher education resources is strengthened.

Maintaining the requisite agricultural expertise base—with its resulting rewards for the entire U.S. economy—requires a strong and coordinated strategy by colleges and universities, agricultural business and industry, and federal and state governments.

Priority initiatives and actions

Several national initiatives must be launched and specific actions must be taken by public and private decision-makers if we are to have the human capital necessary to maintain a cost-efficient and competitive agriculture. Following are high priority components of the action agenda proposed by agricultural leaders in industry, education, and government.

Attract highly capable students

An increased proportion of agricultural science and education resources must be directed to attracting the brightest and best undergraduate and graduate students. Colleges and universities must be more precise in communicating critical agricultural expertise shortage areas and must redirect funds to attract highly qualified applicants. Incentives must be competitive with competing disciplines.

Agricultural business and industry must provide added emphasis and visibility to emerging high technology careers through advertising and promotion campaigns. Professional organizations must increasingly articulate human capital needs to targeted groups outside of their memberships.

Competitive graduate fellowships in the food and agricultural sciences were authorized by the U.S. Congress in the Agriculture and Food Act of 1981. The federal government currently invests about $1.5 billion annually in agricultural research. Deepening scientific and professional expertise deficits in plant and animal molecular genetics, food science, agricultural engineering, integrated reproductive management, and other priority disciplines must be addressed by a responsible federal investment in specifically targeted graduate fellowships.

Highly qualified graduate school applicants are a product of strong undergraduate programs. Therefore, highly capable students must be attracted to agricultural and natural resources baccalaureate degree curricula.

Incentives are critically important. Agricultural colleges and universities must double undergraduate merit scholarship awards within five years. Private contributions will be vitally important to achieve this goal. The nominal USDA research apprenticeship program for high school students must be greatly expanded.

Strengthen America's agricultural higher education

State governments have provided the major support base for higher education programs in agriculture and natural resources. Agriculture—very much dependent upon a highly productive human capital base—continues to be a strategic component in most state economies. Consequently, states need to maintain strong college programs in agriculture by revitalizing teaching facilities and equipment.

Educating agricultural scientists, professionals, and managers is a highly technical process. It embraces rapidly changing and highly sophisticated equipment and materials utilized by specialized educators. Institutional real costs per student are escalating because of extensive laboratory requirements in high quality agricultural curricula. These factors must be carefully considered by state decision-makers. An eroded support base will not generate the requisite human capital in agriculture and natural resources.

Colleges and universities must increasingly redirect limited resources to higher priority programs and curricula. Greater emphasis must be placed upon sharing teaching resources on an interstate or regional basis through electronic networking among colleges. Likewise, colleges and agricultural businesses may benefit from similar networks designed to better utilize limited resources.

Faculty development strategies must be augmented. More short-term exchanges between agricultural college faculty and industry professionals are needed. Also, there must be much greater emphasis on upgrading faculty to utilize rapidly changing technology. Incentives must be fully integrated into faculty development strategies. College, industry, and government exchanges and use of specialized facilities and equipment must be expanded.

Most students currently enrolled in agriculture and natural resources curricula have a very limited agricultural experience base compared to their counterparts of a decade ago. Therefore, it is imperative that agricultural businesses and colleges further expand internship and cooperative education opportunities for students.

The U.S. Department of Agriculture must recognize that the state/federal partnership extends to college teaching programs as well as to research and extension missions. These are inseparable and to neglect one is to neglect the others. Strengthening the agricultural expertise base is an integral component of the agricultural science and education system. A university-strengthening grants program must be initiated by USDA to help revitalize agriculture and natural resources curricula and demonstrate superior instructional programs.

Improve forecasting of Human Capital needs

An adequate national information system for forecasting agriculture and natural resources human capital requirements must be developed and maintained by USDA. Colleges and universities with degree programs in agriculture and natural resources must actively participate with USDA to develop the system. Also, they must give priority emphasis in providing requisite data for the system.

In 1977, the U.S. Congress designated the Department of Agriculture as the lead federal agency for college teaching programs in agriculture and natural resources, and reaffirmed it in the 1981 Farm Act. Program leadership was transferred from the Department of Education.

The USDA based information must also include components to facilitate planning and management of college instructional programs which generate needed agricultural expertise. Comparative instructional costs, anticipated enrollments, projected faculty needs, and facility and equipment requirements are priority data needed for more efficient management of limited educational resources.

Extensive investments are made annually by USDA to project the supply of and demand for an extensive array of agricultural commodities. These data are important. However, an ongoing automated information system which generates needed data for managing the development of agricultural expertise—scientists, professionals, and managers—is also critically important and must be given a much higher priority by USDA policy-makers.

It is time to act

These priority initiatives and actions must be set into motion. Cooperative efforts of the public and private sectors and of colleges producing agriculture and natural resources graduates must resolve the expertise shortages which threaten an efficient, reliable, and competitive American agriculture.

Agricultural mindpower is a basic national resource and is crucially important to the security and well-being of this country. The United States cannot continue as the lead nation in agriculture without new efforts for the development of human capital, the ultimate resource in American agriculture.

INTRODUCTION OF PANEL MEMBERS

Senator COCHRAN. Dr. Dunbar, you are the spokesman. We will turn it over to you and encourage you to be brief. We have already started running a little late. Part of that is my fault.

Dr. DUNBAR. Thank you very much, Mr. Chairman and Mr. Burdick.

As you have mentioned, I am John Dunbar, dean of agriculture and director of the Agricultural Experiment Station at Kansas State University in Manhattan, Kans. I serve as chairman of this distinguished panel representing agricultural research, teaching, and extension in our land-grant universities.

Mr. Chairman, on behalf of our committee, I wish to congratulate you on your being selected for the national 4-H alumni special award. It is a special award, and we are all very proud you received that.

The other members of our panel are: Dr. Don Crossan, dean of agricultural sciences, University of Delaware; Dr. John Woeste, dean of the cooperative extension service, University of Florida; Dr. Gene Love, associate dean of agriculture, Pennsylvania State University; Dr. Richard Skok, dean of forestry, University of Minnesota; Dr. Sidney Evans, associate dean, North Carolina Agricultural and Technical State University; Dr. Hoover Carden, administrator, extension programs, Prairie View A. & M. University; Dr. Richard Dierks, dean of veterinary medicine, University of Illinois; Dr. Malcolm Purvis, assistant dean for international programs, University of Minnesota; and Dr. Elizabeth Elliott, assistant dean of home economics, Iowa State University.

Our purpose is to present to you the budget request of our division of agriculture for Federal support of the experiment stations, cooperative extension service and resident instruction programs of the land-grant universities.

I would like to say, too, on behalf of all the research scientists, classroom teachers, extension specialists, county agents, and administrators of land-grant universities, we would like to commend you for your great knowledge and understanding of the vital importance of these institutions in providing food and fiber for the people of this Nation, for export, and for maintaining a sound, efficient, progressive agriculture and food industry. We also wish to thank you for your strong support of this important work.

In recognition of our time constraints, as you have requested, I will summarize my remarks and try to be brief, since the other panel members have each prepared a statement, and it is on file for inclusion in the record.

PROBLEMS OF RESEARCH AND EXTENSION

As we look back at the last 10 years and forward at the next 10 years and time beyond, we feel the increased load for research, extension, and teaching in our land-grant universities has been due to five major factors. We were going along, doing quite well, when these things started to burgeon upon us about 10 years ago.

Many new problems have demanded the attention of our research and extension personnel—the quality of our environment, energy, exotic animal diseases, and many others which we had never even thought of. Government regulatory agencies have required the development of finding safer alternatives to pesticides. This is just one of the additional things.

Second, a larger proportion of our research base is required just to maintain current high levels of productive efficiency. For example, the grain bugs in our part of the country mutate about every 5 years, and we have to develop a whole new resistant line of sorghum, wheat, et cetera. Going down to biotype-E, that is the fifth or sixth one, and this is requiring a higher percentage of revenue just to stay even.

Third, more and more manpower is required to develop and integrate these complex new systems of scientific information at every phase of our whole food chain. This goes from the basic research to the complex part of management problems to the complex problems of minimum tillage or conservation tillage.

A fourth area which has led to the overload is that whole new fields of applied research must be developed to exploit new discoveries, such as genetic engineering.

And the fifth is that we are being asked to develop expanded basic research to open up new frontiers of science for the year 2000 and beyond.

AGRICULTURAL RESEARCH MANPOWER

These things have added to our research load a great deal, and the resources that we have had to attack these problems have increased very slowly. The total agricultural research manpower in the USDA and agricultural experiment stations went up only about 2 percent in 13 years, from 1966 to 1979, to tackle these initial problems. For the USDA, the number of scientists has actually declined, and for the land-grant universities, agricultural experiment stations, the number has increased, but has increased less than one additional person per year per experiment station. That is not nearly enough to get the extra work done in Kansas, North Dakota, Missouri, or any other place.

The situation in the cooperative extension service is almost identical to that with the agricultural experiment stations, because not only do we have to develop the new information, but we also have to get it in to people who can use it, both agribusiness and the Department, of course.

The last summary that I would like to put before you is that large increases in numbers of scientists are going to be required if we meet our scientific needs. Not only trained agricultural people, but at the Ph. D. level especially, because this is the reservoir from which we draw our teachers in the colleges, our research scientists in the experiment stations and the USDA, our research scientists in private industry, and our extension specialists. This whole part of what I call the quality factor, is going to have to be increased if 20, 30, 40, 50 years from now, or just 10 years from now, we are going to have to meet the increased demands that are being placed on our system.

BUDGET REQUESTS OF NASULGC

The details of the research, teaching, and extension budget request are included in our statement entitled, "Securing America's Food and Agricultural Base." I would just like to turn to that for a very few minutes and brief you on each of those items to refresh your memory if you have looked at it already. This we are submitting for the record.

[CLERK'S NOTE.—This statement appears on page 16.]

First, with regard to the formula funds under the Hatch Act, the McIntire-Stennis Act, and the Smith-Lever Act, we are requesting a 7-percent increase. This will just meet a little bit for inflation and a little bit for catchup funds.

For those items that are under special grants in research and in the other items under section 3(b) and extension, we are asking that they be maintained at last year's levels.

With regard to some specific items for the animal health and research section 1433, we request that it be increased to $8 million from

$5,760,000. Some people have said that that is a very small amount of money when you spread it among the 27 colleges of veterinary medicine and animal science, but this money is mostly for operating money for the scientists who are there. This is a very crucial part of their operation to make the work more effective. Section 1434 has not been funded in the past, but we are requesting $4 million to attack problems of animal diseases which cover more than one State, where we can pool our scientific resources to do a better job with the money that we spend.

In the past, competitive grant funding has been used for crop research primarily. An increase of $4.5 million is requested for livestock research to provide assistance to our livestock industry in the country.

We requested that special grants be kept at the same level as last year, and alcohol fuels and native latex as well. For the 1890 facilities, this is a part of law, and we are requesting that it be funded at the $10 million level, the same as it has been.

Integrated reproductive management was not funded last year. The real importance of this item is to bring together a combination of knowledge, get it into people's hands, and use it to pull together the animal health items, the nutrition, the pest control, the various things that rotate, to improve the efficiency and the use of our breeding herds. It will give us more calves per cow, more lambs per ewe, more eggs per hen, et cetera.

We feel an increase in aquaculture—in fish diseases and nutrition—is important in many States. Many people don't know it, but we have 50 fish items in Kansas.

As new problems come along, new Federal initiatives allow for a little bit of seed money to help develop pilot projects, to get started on the new things, to solve the problems in a small way before we put large programs in place.

This request for the 1890 Colleges and Tuskegee Institute is more than 10 percent, but it gets us up to 6 percent of the total funding which is required in the law.

For renewable resources extension, which is primarily for forestry, wildlife, and range resources, we feel a $5 million level would be enough money to have an extension program in range management as well as in forestry.

SHORTAGE OF SCIENTISTS

Mr. Chairman, with regard to the higher education request, this is for competitive graduate fellowships to help meet the huge needs for training scientists to man the laboratories we talked about a while ago.

I didn't mention it before, but we in the north central region of this country turned out 10 percent fewer Ph. D.'s in 1980 than we did in 1970. The numbers are not growing rapidly enough to meet our needs. There were large numbers of people training under the GI bill following World War II. Many of these people are retiring now, and some of our universities are having large retirements. There simply aren't enough people to go around. I think the number is 38 Ph. D.'s being granted in agricultural engineering this year—and that is in the whole United States. That simply isn't enough.

Mr. Chairman, thank you for your attention and for listening to our request. You may have some questions, and our panel will be happy to answer them.

Senator COCHRAN. Thank you very much, Dr. Dunbar. We appreciate your statement and the suggestions that you make to the committee. I notice that Dale Stansbury, who is your director of the Food and Agriculture Division of the Association, is here. It is always a pleasure to see him. We work closely with him in trying to determine the adequate levels of funding of all these programs in which you are keenly interested.

I might say that your recommended levels of funding for all of these programs taken together may be a little bit ambitious, or overly optimistic, this year. Of course, I am disappointed, also, that the administration hasn't requested more funds for some of these programs. I think we are going to have to go over that carefully before we approve or recommend it to the full Appropriations Committee. We will try very hard to make sure those essential programs you described are protected. If there is any way to save some money, we would like to be cooperative with the administration in this regard. We recognize the serious problems that these big deficits are causing and the potential harm they can do to our economy in general. We do need to keep that in mind, and we will. But we also recognize how important it is to our State universities and land-grant colleges, to our research efforts, our extension programs, and our teaching programs. This is a vital part of our overall national resource, and we are not going to sit back and watch it deteriorate.

Are any other members of the panel scheduled to make an oral statement? We do have written statements from everyone, but if anyone has a comment or suggestion, please feel free to do so.

STATEMENT OF DR. LOVE

Dr. LOVE. Mr. Chairman, I promise to be very brief. I would just like to read this into the record if I could. It is a pamphlet entitled, "Human Capital Shortages: A Threat to American Agriculture." You may have already received a copy of it. It simply identifies the shortages we have in higher education across this country—a 13-percent projected shortage. They are extreme, and they are critical. I say that advisedly. We are at a point right now where we have to make some educational decisions in order to get the right kind of people into our educational system to make the kind of decisions that will have to be made at the turn of the century. Some of the most important decisions this country will make will be made around the turn of the century, and we can't do it unless we have educated and scientific people to turn out the technology we need to make those decisions. It is awfully hard to talk about this at a time when we have surpluses of food, and things like that to remind us every day of how successful we have been with our research programs. But I assure you it is extremely important that we think in terms of education, in order to have the people we need to make the decisions at the turn of the century.

I would simply like to make that part of the record.

Senator COCHRAN. Dr. Love, I think that is a very important point. There is legislation in the Senate being considered now, I think it began yesterday, on a new program to help stimulate career choices in the math and science areas. We are currently seeing people veer away from careers in teaching. It is a matter of economics for some, and others simply haven't been equipped with the background and incentive for it at the elementary, secondary, or college level, before graduate school decisions are made. I think we really do have a challenge facing us in this regard that is most important.

Dr. LOVE. We find that incoming students are inadequately prepared in a number of areas. We have a 13-percent shortfall that is projected. We have about an 18- to 19-percent drop in undergraduate enrollment. Graduate enrollment is declining. As Dr. Dunbar pointed out, a large number of faculty members are retiring. These are folks we hired after the Second World War who are now retiring, and we have a larger need in the next several years than we have ever had in the past. For that reason, we really would encourage the $10 million request for competitive grant fellowships that appears in the testimony.

Senator COCHRAN. I notice that.

Dr. LOVE. Thank you.

Senator COCHRAN. Any other comments?

[No response.]

Senator COCHRAN. Thank you very much for being here. We appreciate your contribution to the hearing.

Dr. DUNBAR. Thank you, Mr. Chairman.

NORTHERN PLAINS SOIL AND WATER RESEARCH CENTER

STATEMENT OF HON. JOHN MELCHER, U.S. SENATOR FROM MONTANA

Senator COCHRAN. I notice Senator Melcher came into the hearing room. Senator, would you come forward.

Senator, I don't know what you have on your mind, but I know it would be of benefit to hear your suggestions to the committee. We welcome you to the subcommittee.

Senator MELCHER. Thank you very much, Mr. Chairman.

I am going to be very brief because my advocacy centers are on three portions of the appropriations bill, and I have a more detailed statement that I will submit for the record. I will summarize the points that I would like to make.

I am very much disturbed about the proposal of the Agricultural Research Service to close the Northern Plains Soil and Water Research Center at Sidney, Mont. This is not a large soil research center, but it is a very fine one that is in operation now. Those of us from Montana and from western North Dakota have had some concerns about closing it and taking the duties and research work that has been done there and dividing it up. Some of it would go to Bismarck, N. Dak., and Senator Burdick knows all about that. Part of it, on saline seep research, would actually go to Maine. When you go from Sidney, Mont., to Maine for saline seep research, it is no longer the same type of research. The condition varies so much that saline seep in the West isn't going to have adequate research anymore.

Now we have gone over this rather thoroughly with the Secretary of Agriculture and with his people who are suggesting this change, and, in all fairness, they don't have much of a case. It just isn't there. Apparently, there isn't going to be any money saved. If there were monetary savings, it would come at the expense of ignoring some of the problems we have in soil research in Montana and western North Dakota.

Saline seep is an increasing problem in the Western States. The work that has been done there at Sidney is excellent. We need to continue to pursue and find methods of controlling saline seep.

We raise sugar beets both in the valley area near Sidney and in North Dakota. When we met with the Secretary of Agriculture on this, there were representatives of the North Dakota Sugar Beet Growers right in the meeting with us. They correctly pointed out that there is research on sugar beets in other parts of the country, some in Montana and some in Fargo in the eastern part of North Dakota, and that is well and good. But there are different problems. From Sidney to Fargo is a good 300 miles, or a little more.

Senator BURDICK. Make it 400.

Senator MELCHER. About 300 air miles.

The conditions vary. You have irrigation problems that are different and soil problems that are different. In all fairness to everyone, we think the center should remain open. We will be requesting the committee to help make sure that it remains intact and not abruptly changed.

It is not a big item, however, Mr. Chairman, in terms of dollars, but it is a big item in terms of continuation of basic soil research that has been done there over the course of years.

CONSERVATION

On conservation, I feel when I approach this subcommittee, I am really preaching to the choir when I say we need to do more for conservation than we are doing. We can't afford the continual drift downward in the amount of work we are doing because of inflation. If we don't come up with more dollars, we are just going to do the same amount of conservation work we were doing in the past, even going back 4 years.

I think conservation efforts should increase: $200 million for the watershed and flood prevention program; $50 million for the Great Plains conservation program; $50 million for resource conservation and development; $210 million for agricultural conservation programs; $13.5 million for the forestry incentives program; and $10 million for the water bank program.

I think we should do more. The figures in the administration's recommendation, and I feel that you are well aware of those items and share my belief, should be increased. I just want to offer any assistance I can. All of those are small amounts and too small for the needs there.

ANIMAL CANCER RESEARCH

On animal cancer research, we do have the act authorizing $45 million. There is some money spent through the science and education division within the Department. We should recognize that while we spend over $1 billion in cancer research annually, not enough of that is spent in cancer research for animals. The Animal Cancer Research Act which we passed several years ago authorizes up to $25 million per year in cooperation with the National Institutes of Health. I do encourage this subcommittee to appropriate more money for this purpose in cooperation with the National Institutes of Health. There is some money proposed in this current fiscal year, and it is money well spent, but it is not very much and certainly an infinitesimal part of the Government's annual expenditure in cancer research. I strongly urge the subcommittee to increase that amount and to, frankly, go after it a little bit harder.

The American Veterinary Medical Association gave some excellent testimony on March 21 before the Appropriations Committee in the House, and perhaps they are submitting similar testimony to this subcommittee. If not, I am attaching a portion of their testimony given in the House on March 21 to my testimony, because they outline the need for further efforts in animal health research and its interplay with the veterinary colleges and veterinary research throughout the United States. I echo their sentiments completely and urge the subcommittee to take note of them.

Senator COCHRAN. Thank you very much, Senator Melcher. We will, of course, include your entire statement in the record.

[The statement follows:]

STATEMENT OF JOHN MELCHER

Mr. Chairman, I very much appreciate the opportunity to appear before your subcommittee today to discuss a number of budget items for the coming fiscal year that are of a great deal of concern to me. Initially, I would like to state that I am strongly opposed to the plan of the Agricultural Research Service (ARS) to redirect research funding from a number of its research stations and to close them down.

In particular, the suggestion to close the Northern Plains Soil and Water Research Center at Sidney, Montana, is penny wise and pound foolish. It is ironic that at no point does the ARS justify this closing as a money saving move. Rather, they give as a primary reason for this closing a recent GAO Report that underused facilities of ARS be consolidated.

It is my contention that this facility is far from underused and in fact, is uniquely located in the one place that can do important and significant agricultural research not only for Montana but also for vast areas of the Northern Great Plains including western North Dakota, western South Dakota, northern Wyoming and south central Canada. The geographic and production acreage areas covered by this station are probably larger than almost any other location in the country.

ARS would argue that the research being done at Sidney is substantially completed. Again, I think that that argument is in error. For example, the proposed relocation would totally eliminate salinity-saline seep control research despite the fact that this remains a serious problem in the Northern Plains area. In fact, the most recent report of the Soil Conservation Service (SCS) on their works in Montana states: "One-third to one-half of Montana has the potential for saline seep development. The most recent estimate of saline seep size -- 200,000 acres -- has been termed low by some conservationists." The magnitued of the problem is even larger when looked at regionally. North Dakota, South Dakota, and Wyoming have an additional 168,600 acres subject to saline seep development.

Further, there are vast other areas of research that can and should be done at Sidney to take advantage of its unique location. The nearest cropland research station lies 260 miles east, in an area receiving 20% more annual rain fall than the area served by the Sidney station. The location is also uniquely suited to deal with both winter and spring wheat production by virtue of being located almost exactly on the transitional zone between those two grain types. Various new cropping strategies can be developed and evaluated at this station. Disease and insect problems, some of which are as yet unidentified, will need serious consideration. The infringement of perennial noxious weeds, such as leafy spurge, is increasing at an alarming rate. New and more imaginative methods of control must be developed.

This facility is also deeply involved in research that will not only result in improved production but also in protecting a particularly fragile soil base from water and wind erosion -- problems that the SCS categorizes as number one in that region. At a time when other governmental agricultural programs are seeking to idle additional millions of acres of cropland, it would be very shortsighted to close a research station that is urgently needed only to discover that the result is the irrevocable loss of millions of acres of top soil.

For all of these reasons I strongly believe that the Northern Plains Soil and Water Research Center should be maintained. I am hopeful that the Appropriations Committee will include language in the 1984 Agriculture Appropriations Bill directing ARS to maintain its activities at this station.

Conservation is one of my very highest priorities and not just for the Northern Great Plains. I must tell you that when I began examining the USDA conservation program budget for fiscal year 1984, I was shocked. This budget slashes the meager protection of our soil and water land base. It must be rejected and reversed for it:

--reduces Watershed & Flood Prevention Operations from $185 million to $97 million;

--reduces Great Plains Conservation Program funds from $21 million to $16 million;

--totally eliminates funding for Resource Conservation & Development (RC&D) activities;

--combines the Agricultural Conservation Program, the Water Bank program, and the Forestry Incentives Program and then slashes that combination from $211 million to $56 million.

Yet at the same time there is a money request by the Administration for $110 million extra for El Salvador. I find it hard to justify those kinds of requests when the budget for soil conservation threatens delaying doing the necessary work before greater damage is done to our Nation's greatest asset--our land base.

Agronomist Henry Ahlgren wrote in the 1948 Yearbook of Agriculture, "The soil comes first; it is the basis, the foundation of farming. Without it, nothing; with good soil, good farming and living." Not only do soil and water resources undergird our remarkable agricultural industry, but agriculture is the foundation of our total economy.

The farmers and ranchers of this Nation recognize the interdependence between our whole economy and sound conservation practices. Yet the current state of our agricultural economy is such that most ranchers and farmers find themselves extremely hard pressed. And the budget for conservation practices that we are being offered is no help.

For those reasons I would urge the Appropriations Committee to provide funding that more realistically meets our true National needs. There are numerous minor adjustments that could and should be made. However, there are also a number of major long standing programs that simply must be kept at their more traditional levels or better. In particular, I would recommend:

--$200 million for Watershed and Flood Prevention operations;
--$50 million for the Great Plains Conservation Program;
--$50 million for Resource Conservation and Development;
--$210 million for the Agricultural Conservation Program;
--$13.5 million for the Forestry Incentives Program;
$10 million for the Water Bank program.

The Watershed and Flood Prevention program is important not only in terms of what it does but also in terms of impact on local economies. Many local sponsors have already made committments under this program and construction contracts can provide employment for thousands of people in the private sector. The program should be funded at $200 million with an an appropriate number of new starts.

The Great Plains Conservation Program continues to prove the value of long-term contracts for conservation cost sharing in the region it serves. The program was recently reauthorized with its funding limit raised to $50 million. That amount should be made available. There are farmers and ranchers eager to use this program if enough funds are available.

Over the course of time there have been numerous attempts to eliminate the RC&D program. Only strong Congressional support has keep this program going despite the fact that it has proved itself a vital catalyst for rural development activities. I am told that in FY 1981 over $57 million from other funds was attracted to the RC&D program. This program should not only have $50 million available to it but also the Committee should include appropriate language to preclude phase-out activity.

Finally, I strongly urge that you reject the proposal to combine the Forestry Incentives Program, the Water Bank Program, and the Agricultural Conservation Program. These programs do have different purposes and should be funded separately. I would also hope that the funding made available to these programs would approach the amounts I have recommended earlier.

Another major concern that I have is animal cancer research..

Cancer is a disease not unique to mankind alone. I't knows no species barriers. It occurs spontaneously in domestic animals and birds, which obviously share the same or similar environment as man. The importance of basic research on cancer in animals, with its patential benefits to research on human cancer, cannot be over-emphasized.

The Animal Cancer Research Act (PL 96-469), which I sponsored, was signed into law in October of 1980. The Act authorized $25 million per year through 1986 for the Department of Agriculture to conduct basic cancer research on birds and animals in cooperation with the Director of the National Institute of Health. For the last three years this basic research has been limited due principally to a lack of funding by the Congress. Thus, I urge my collegues to support the appropriation of $25 million for Fiscal Year 1984 authorized by the Animal Cancer Research Act.

Cancer in livestock and poultry seriously affect our nation's food supply. Using the latest available data from the Federal Meat and Poultry Inspection Program, Food Safety and Quality Service, Department of Agriculture the average number of animal carcasses annually condemned for neoplasia (a tumorous condition) are as follows:

Cattle	28,119
Calves	150
Sheep	83
Swine	3,274
Horses	236
Poultry	4.3 million

While it is true that the carcasses condemned are utilized for other non-human products, these condemned carcasses represent a direct multimillion dollar loss to producers, and an indirect loss to consumers in the form of higher prices for the remaining food product.

Our export markets also suffer an economic loss due directly to cancer in our domestic animals. Meat inspection data shows that as much as 30% of adult dairy cattle are infected with bovine luekemia virus. While only certain cattle with genetic constitutions develop tumors when infected, the virus is highly contagious and rapidly spreads from infected to non-infected cattle by contact.

Many Europeans and Latin American countries do not allow the importation of bovine luekemia virus infected cattle, while some potential importers -- such as Yugoslavia -- go so far as to prohibit the import of all U.S. cattle.

West Germany, a country with an official bovine luekemia virus eradication program , is already displacing the United States in the cattle export business. This Congress has heard over and over again that the American automobile industry and some other industries are taking second place to Germany and Japan. Here is an opportunity -- of great importance to agriculture -- where the United States can avoid taking second place to other countries. But first we must get on with the research we are well equipped to conduct but are not pursuing for lack of funds.

Presently the Department of Agriculture's Science and Education Administration (SEA) supports cancer related research on a comparitively limited budget. Funding levels for animal health research and disease priorities severely restrict and limit the cancer disease problems that are eligible for SEA funding.

Research to date in the animal cancer field has been most encouraging. In the early 70's an SEA sponsored project resulted in the development of a vaccine to control Marek's disease, which is a leukemia-like malignancy of poultry. Before the development and use of the vaccine, Marek's disease was a devastating threat to the poultry industry, with losses estimated in excess of $150 million annually.

To further illustrate the progress at hand, an outstanding breakthrough in animal cancer research occured just last week at the Ribi Immune Chem Research laboratories in Hamilton, Montana. On April 12, 1983 the Department of Agriculture licensed an Immuno-Therapy treatment for cancer eye in cattle and sarcoid tumors in horses. In field tests on tumors up to 2½ inches in diameter, the treatment's cure rate was 74% in cattle and 93% in horses. Mr. Chairman, that relates to a potential saving for producers in excess of $57 million annually.

In addition, Mr. Nils Ribi, the Vice President for financial and administrative affairs, has informed me that the laboratory has filed with the Food and Drug Administration a Notice of Claimed Investigational Exemption for a New Drug (IND). Upon the F.D.A.. acceptance and filing of the I.N.D., Ribi Immuno Chem will conduct clinical trials to determine the treatments value for use in combating human cancer.

In the Senate hearings on PL 96-469 one of the witnesses, Dr. Myron Blume of the Mount Zion Hospital in San Francisco, made this very telling observation:

> " I think also examining in more depth the tumors that occur in farm animals, in domestic animals, pets, and wildlife is important. The animal models that are conventionally used in cancer research for the most part are susceptible to a variety of induced tumors, induced by chemicals or virus, or "spontaneous" tumors, which seem to depend on the inbreeding of the animals for their expression."

A very preceptive and -- I fear -- a very accurate statement by Dr. Blume. If we concentrate a vast majority of our cancer research on animals, mostly rats and mice, that are bred -- often inbred -- so as to be born to die of cancer, we may be wasting the opportunity to investigate the spontaneous occurrence of cancer in the living environment. This opportunity clearly illustrates the need for expanded animal cancer research.

I strongly hope that these hearing will lead to full funding of the Animal Cancer Research Act for Fiscal Year 1984 so that we might begin a coordinated, effective approach to the battle against cancer. We are not talking so much here about new money as we are talking about new opportunities. I hope we will grasp the chance while it is still at hand.

Finally, I concur with the recommendations of the American Veterinary Medical Association regarding animal health research. In fact, I would like to incorporate as part of my statement the recommendations of the AVMA presented to the Committee on Appropriations of the House of Representatives on March 21, 1983:

> In the budget for the Cooperative State Research Service, our concerns center on funding for animal disease research. It seems incongruous that in a nation which utilizes animals so extensively and so diversely the first specifically designated funds to support animal disease research and to provide for the post-doctoral training of young veterinary medical scientists in its schools and colleges of veterinary medicine were authorized as recently as 1977 by P.L. 95-113. That legislation authorized up to $25 million annually

to be distributed in a formula format. Another $15 million was authorized annually for research on animal diseases of regional and national importance. Beginning in FY 1979, funds have been appropriated as follows:

(in millions of dollars)

	1979	1980	1981	1982	1983	Budget 1984
Formula (Sec. 1433)	5.0	6.0	6.5	5.76	5.76	-0-
Special Grants	10.0	7.0	5.05	7.156	7.156	7.156
Totals	15.0	13.0	11.55	12.916	12.916	7.156

While the appropriations represent a small portion of the total authorized amount, and while the full authorized amounts are realistic and could be used very productively, the monies appropriated have been effectively utilized. Interest in pursuing animal disease research is reflected in a simple statistic. Over the course of the first two years of the Special Grant Program the nation's colleges of veterinary medicine and the departments of veterinary and animal sciences responded by submitting 1,011 research proposals totalling $154 million. Only 145 (14.3 percent) could be funded with awards totalling $15.8 million (10.3 percent of the requested amount). This is strong testament to the interest and desire on the part of veterinary medical scientists to engage in animal disease research. The research capacity is in place and can be made highly productive with adequate support. Research support at the universities is also needed to assure a continuing supply of well-trained young scientists emerging from the system.

The 97th Congress enacted legislation (P.L. 97-98, "Agriculture & Food Act of 1981") maintaining the $25 million authorization level for formula funding (Sec. 1433 of P.L. 95-113) and increasing the authorization level from $15 million to $35 million for competitive funding (Sec. 1434) to address animal disease problems of regional and national importance. The intent of Congress in recognizing the importance of this effort is abundantly clear.

We strongly support the President's proposal to make a real increase in the research efforts of ARS. However, the veterinary medical colleges and state agricultural experiment stations are vital links in a national continuum which historically have had and currently have their fingers on the pulse of production agriculture. The department appears to down-play the importance of this network. It should be recognized also that the performance of research at the most basic, fundamental level is as much the responsibility and role of the university located research scientist as it is his/her counterpart performing in a federal laboratory. While the federal animal disease research programs should be sustained, it should be pointed out that there is some distance separating those engaged in such research from the day-to-day production problems being faced, and that the federal programs are in no way designed, nor do they have the responsibility, to develop and produce the new veterinary medical research scientists which will continue to be needed.

We concur in the recommendations made by the National Association of State Universities and Land Grant Colleges for FY 1984 funding in CSRS:

(a) $8 million for formula grants authorized by Section 1433

(b) $4 million for projects directed to regional and national animal disease problems authorized by Section 1434

(c) $7.156 million in animal health and disease special research grants as recommended in the executive budget.

MOVEMENT OF SIDNEY LABORATORY

Senator COCHRAN. Senator Burdick, do you have any comments? He was talking about your State there for a while.

Senator BURDICK. Mr. Chairman, I would like to tell you how I acquired my vast knowledge of farming and agriculture.

Senator COCHRAN. How long is that going to take? [Laughter.]

Senator BURDICK. It will be very short.

Those beginnings were acquired in Sidney, Mont., when I drove a team composed of one horse and one mule on a ranch 5 miles out of Sidney. So I am well acquainted with your country, Senator Melcher. I am also aware of the fact that we have a very fine facility at Mandan, N. Dak., where they do much research in the areas you have been discussing.

But having talked to me previously about this matter, you told me there was a good deal of expertise and service rendered in the Montana institution that embraced your part of the country, some of Wyoming, and some of South Dakota. Would you tell the committee what your institution will do and can do that can't be done in Mandan?

Senator MELCHER. Obviously, when you take the same scientists and move them to a different setting, they are going to take that same knowledge with them. It won't disturb what they do or their efforts or their motivation. Those things will be the same. These soil scientists are dedicated to pursuing their work wherever they are located. So I am not saying that that hampers them in their individual effort.

SALINE SEEP

What will be changed, however, will be the type of work that they have been pursuing there as their goal and as their assigned responsibility. Saline seep has been one of their prime responsibilities, along with the proper soil research done for the sugar beets and other crops. The advantage of continuing that work in saline seep cannot be overemphasized. If it would be picked up at Mandan, it is getting a new function in the Mandan group's work; some of it would be repetitious, and the change won't help anybody.

Saline seep is probably the worst soil problem we have in the West right now. There are obviously ways of correcting it. We listened diligently to what the Department of Agriculture officials had to say about their thoughts—that there had been enough research done on it, and that now it was really up to the Extension Service to carry out the advice to individual landowners on how saline seep should be corrected. We vigorously disagree with that. While it is true we know several methods of controlling saline seep that can be applied to an individual farm or ranch, we think there is much more to be learned about it and that it is still a question of continuing basic research on it until we know several more different ways of controlling it, and perhaps more effectively controlling it with less cost. All of the methods so far do involve quite a bit of cost. You almost always have to tailor these recommendations to individual farms and individual portions of land on a farm or ranch if it is a fairly good sized ranch.

So I would say that while there can't be all the work done at Sidney, it (*a*) won't save any money and (*b*) the conditions are slightly different, and certainly different than they are in Maine. That is what the proposal is; some of those people from the station might end up in Maine. Anyway, the delegation of continued research in saline seep would be moved to Maine. It is beyond plausibility that that would satisfy our needs in the West.

Senator COCHRAN. Thank you very much, Senator Burdick.

RESEARCH FACILITIES

Senator Melcher, we are really up against a problem with this Agricultural Research Service budget. You point out the objection you have to closing or moving facilities around the country. I don't have any problem with trying to consolidate where there is no loss of emphasis in important research areas, but we have a lot of complaints from Members of Congress, here in the Senate especially, to the moving of a bee research laboratory from Laramie to Tucson, Ariz. Members expressed themselves quite forcefully on that, but the administration continues to go forward with its plan. Maybe you have figured out a way that I haven't as to how you can keep the administration from closing one of those research labs when we don't want them to. Our power is almost like a negative power. We can refuse to appropriate funds, but that would be defeating the whole purpose of the research effort.

Senator MELCHER. In the early seventies in one of the moves for reorganizing the Forest Service, the testimony of the Department of Agriculture, including the Forest Service, presented to Congress was that they wanted to close a regional forest operation in Missoula, Mont., region 1. They would consolidate those national forests into some other national forest and come up with two or three less regional offices. Mike Mansfield was kind of curious, wondering why they were suggesting this. After he was advised, he said, "I don't agree." They didn't withdraw. So in the appropriations process, he put in a provision that said none of the money could be spent for closing the region 1 Forest Office in Missoula, Mont. It stayed in every appropriations bill until 2 or 3 years ago, when the Forest Service said to us:

> We can tell you on behalf of the Department of Agriculture that there is no need in sticking that language in the appropriations bill each year, because we have no plans of closing down the region 1 office.

I know these reorganization plans are prepared in good faith and sincere effort on the part of the Department of Agriculture, or other Federal agencies, but all too often their zeal for trying to streamline or save some money somehow isn't wisely thought out. We don't believe closing this soil station in Sidney is at all wisely thought out. Congressman Marlenee, our colleague in the House from that district, has taken the lead among the four of us that are here representing Montana, including Senator Baucus and myself. We have worked very closely with the Department in explaining to them that we realize they are coming from a position of attempting in the long run to save some money down the road. But we don't believe this fits in very wisely and prudently. They may reconsider. There may be a suggestion from the Secretary that he is not very interested in doing it. I wish he would. Barring that happening, perhaps it might be possible to use the Mansfield approach. I know both of you have participated in avoiding mistakes by that means. It is one method that is sometimes necessary to use.

Senator Cochran. Thank you very much. I appreciate your being here and contributing to the hearing.

Senator Melcher. Thank you, Mr. Chairman.

STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM MONTANA

Senator Cochran. I notice Senator Baucus has come into the hearing room now. Max, welcome to the committee. You may proceed in any way you wish.

Senator Baucus. Thank you, Mr. Chairman.

SIDNEY LAB

The fact of the matter is, it doesn't rain west of the 97th meridian. The average annual rainfall in eastern Montana is about 12 inches a year. Here, in the District of Columbia, it is at least 40 inches on an annual basis. In the next several months, if the present rate continues, it is going to be more than 40 inches. In your State of Mississippi, it rains much more than 12 or 13 inches a year. That is the main point I want to make here. I don't think people in Washington understand that it doesn't rain west of the 97th meridian. We get a few showers, but it does not rain. It is dry. It is dry-land farming, and that is why we need a research station in Sidney, Mont. That is why we have to keep the research stations that make up the northern Great Plains research project.

Sidney, Mont., is the northern leg of several involved in this northern Great Plains area. It is the leg that is critical because the soil conditions in the northern part of the Great Plains States are much different than the southern part of the Great Plains States. It is more rocky. In some places there is thinner soil.

I want to impress upon the committee, and those in the room who have not been West, that it does not rain in the West nearly as much as it does here, and that is the reason we have to keep research stations in that part of the country.

LEAFY SPURGE RESEARCH

Mr. Chairman, the second reason I am here is to speak a little bit about leafy spurge. Most members of the committee probably are unfamiliar with leafy spurge. But to landowners and livestock operators in Montana, North and South Dakota, Wyoming, and Nebraska, the problem of leafy spurge is as familiar as fire ants or Medflies are in other parts of the country.

Leafy spurge is a deep-rooted, perennial noxious weed with a root system that often reaches a depth of 20 feet. Infestations have been reported in 25 States and in all of the Canadian provinces. Ninety percent of the leafy spurge grows within the five-State area of the northern Great Plains. This is primarily due to extremely costly control methods needed to control range and grassland.

Two years ago, the ARS estimated that 3 million acres of northern Plains rangeland was infested with leafy spurge. Today, the estimates have grown to 4 million acres. Because of the large acreage and the limited effectiveness of present chemical treatments, the high cost of controlling the weed is a problem. Four hundred dollars an acre cannot be justified when the selling price for an acre of this rangeland is in the same ball park.

There is some hope. Leafy spurge is native to continental Europe, central Russia, and Siberia. It is not a serious weed problem in these areas, because there are a number of predatory insects that keep its population manageable.

The cooperative research proposal before you would merely continue the work of scientists who have traveled to Europe before to collect a variety of these natural enemies. But collecting these insects is only the first step. Scientists must be absolutely sure that they do not create a new problem by addressing an existing one.

Years of testing will be necessary to make sure that these insects do not destroy productive crops along with the noxious weeds. There is also the need for additional research into more cost-effective chemical control of leafy spurge.

I have met with many members of the research community in Montana and with personnel from the ARS, and they all agree we need to get started on an integrated research program for the control of leafy spurge.

I am asking the committee for only $300,000 for this research program. The program would run for a period of at least 3 years, and ARS would work in cooperation with Montana State University in coordinating this research.

The details of this cooperative research program are laid out in a two-page summary along with my statement. I ask the committee to provide funding for the project. I am confident if you question the ARS, they will tell you of the importance of this research.

Mr. Chairman, thank you for the opportunity to present my views. I will be happy to provide any further information to you or answer any questions you may have.

Senator COCHRAN. Thank you very much, Senator.

Senator Burdick, do you have any questions?

Senator BURDICK. No questions.

Senator COCHRAN. Do you have leafy spurge in North Dakota?

Senator BURDICK. Yes, unfortunately we have, and there is nothing you can do about it.

Senator BAUCUS. Mr. Chairman, anything the committee can do for us would be appreciated.

Senator COCHRAN. Well, we put some language in the bill a couple years ago about leafy spurge at your request.

Senator BAUCUS. That is right.

Senator COCHRAN. I had never heard of it until you brought it to our attention 2 years ago. Apparently, it is not going away; it is getting worse.

Senator BAUCUS. It is not going away. I can tell you from talking to landowners in my State and by the looks in their eyes. It is serious. We don't have fire ants in Montana or some of the other problems you have in your part of the country, but when I say serious, it is an understatement. These people don't know what to do. It costs so much to control.

Senator COCHRAN. Have you tried kudzu out there?

Senator BAUCUS. I am not sure. What is it?

Senator COCHRAN. It is a southern plant. I think we got that from Japan a long-time ago to help solve soil erosion problems down in the South. Now, that is about all we have. It is hard to kill.

Well, thank you very much. We will see if we can't put something in the bill for that this year. We appreciate your contribution to the hearing and will place your statement in the record.

Senator BAUCUS. Thank you.

[The statement follows:]

Statement of Senator Max Baucus

Mr. Chairman, members of the Committee, I appreciate the opportunity to appear before you today to seek your support for the funding of two agricultural research projects that are of great importance to farmers and ranchers in Montana.

First, I would like to speak in support of the Northern Plains Soil and Water Research Center in Sidney, Montana.

The U. S. Department of Agriculture has proposed redirecting approximately 10 percent of its current research funding of the Agriculture Research Service. This would result in the closure of 10 research locations. The Northern Plains Research Center is one of those locations.

Hundreds of farmers and ranchers throughout the Northern Great Plains use and value its research efforts.

Secretary Block has heard from all of the members of the Montana delegation, the Governor of Montana, Ted Schwinden -- who serves as the Chairman of the National Governors' Association Agriculture Committee, many of Montana's state legislators, the Dean of the College of Agriculture at Montana State University, the local Chamber of Commerce, the Soil Conservation Society of America and the Montana Association of Conservation Districts.

When I first heard rumors of the proposed closure of the Sidney facility, I wrote to Secretary Block for more information. I ask that the February 10, 1983 letter I received from Assistant Secretary Orville Bentley be included with my statement as part of the Record.

To summarize the letter, Mr. Bentley explained that a General Accounting Office report, entitled "Federal Agricultural Research Facilities Are Underused" and a similar Office of Technology Assessment report had recommended that the Secretary develop a plan to consolidate agricultural research activities at

FEWER LOCATIONS. MR. BENTLEY SAID THAT THE REPORTS WERE NOT TAKEN LIGHTLY BY USDA.

HOWEVER, THE SAME REPORT CONTAINED REPEATED WARNINGS FOR THE ARS TO CONSULT WITH CONGRESS BEFORE PROCEEDING WITH ANY PROGRAM CHANGES. USDA IGNORED THIS IMPORTANT ADVICE.

THE FIRST REASON I BELIEVE THE SIDNEY FACILITY SHOULD BE RETAINED IS SIMPLY BECAUSE OF THE MANNER IN WHICH USDA PROPOSED TO RELOCATE THE RESEARCH. A LETTER, DATED FEBRUARY 4, 1983, SENT TO SECRETARY BLOCK BY SENATORS HATFIELD, STENNIS, COCHRAN AND EAGLETON ILLUSTRATES MY POINTS. THE LETTER STATES:

> "TO UNDERTAKE A SIGNIFICANT REDIRECTION EFFORT WITHOUT FIRST INFORMING THE COMMITTEE AS TO HOW THIS WOULD IMPACT ON THE RESEARCH PROGRAM SPELLED OUT IN THE PRESIDENT'S BUDGET WHICH WE APPROVED, AND WITHOUT AFFORDING US THE OPPORTUNITY TO REVIEW AND SEEK COMMENT ON THIS PROPOSAL, IS A SERIOUS BREACH OF COURTESY TO THIS COMMITTEE AND TO THE BUDGET REVIEW PROCESS."

THE SECOND REASON TO MAINTAIN THE SIDNEY FACILITY IS BECAUSE OF ITS LOCATION AND THE UNIQUE RESEARCH IT IS DOING WITH REGARD TO THE SOIL AND CLIMATE CONDITIONS OF THE NORTHERN GREAT PLAINS.

IF YOU LOOK AT THE MAP OF THE ARS RESEARCH STATIONS, YOU WILL FIND THAT SIDNEY IS THE ONLY FACILITY OF ITS TYPE FROM FARGO, NORTH DAKOTA, ON THE EAST TO PULLMAN, WASHINGTON, ON THE WEST. IF YOU LOOK TO THE SOUTH, FORT COLLINS, COLORADO, IS THE NEAREST FACILITY WHERE DRYLAND, SOIL AND WATER RESEARCH IS CONDUCTED.

THE SIDNEY STATION IS PROBABLY MOST WIDELY KNOWN FOR ITS RESEARCH ON SALINE SEEP. THE AREA IS WELL SUITED FOR RESEARCH ON DRYLAND SALINITY -- ANNUAL RAINFALL SELDOM EXCEEDS TWELVE INCHES. YET THIS LAND IS SOME OF THE MOST PRODUCTIVE CROPLAND FOR WHEAT

AND BARLEY AND PROVIDES VAST ACREAGES OF ESSENTIAL RANGELAND FOR LIVESTOCK GRAZING. WITHOUT EFFECTIVE METHODS FOR THE CONTROL OF SALINE SEEP, THOUSANDS OF ACRES OF THIS RESOURCE WILL BECOME VALUELESS -- A WASTELAND.

OTHER VALUABLE RESEARCH IS BEING CONDUCTED AT SIDNEY. DEVELOPMENT OF CROPPING, TILLAGE AND FERTILIZATION SYSTEMS FOR DRYLAND FARMING IS IMPORTANT FOR MORE EFFICIENT PRODUCTION. FINDING WAYS TO PROTECT THIS FRAGILE LAND FROM WIND AND WATER EROSION SHOULD BE A HIGH RESEARCH PRIORITY.

SIDNEY IS THE ONLY RESEARCH LOCATION IN THE NORTHERN PLAINS CAPABLE OF GROWING BOTH SPRING AND WINTER WHEAT. BECAUSE OF THIS, AND THE UNIQUE CHARACTER OF THE SOIL AND CLIMATE AT SIDNEY, THE STATION WILL CONTINUE TO MAKE AN IMPORTANT CONTRIBUTION TO THE RESEARCH PRIORITIES THAT USDA AND THE ARS HAVE IDENTIFIED. TWO OF THE THREE RESEARCH PRIORITIES ESTABLISHED BY THE ARS ARE:

o RESEARCH DIRECTED AT INCREASING PLANT AND ANIMAL PRODUCTIVITY, AND

o RESEARCH DIRECTED AT CONSERVATION OF OUR LAND AND WATER RESOURCES.

THERE IS NO DOUBT THAT THE RESEARCH ALREADY UNDERWAY AND THE POTENTIAL FOR FUTURE RESEARCH AT SIDNEY FITS THESE PRIORITIES.

THERE IS ONE FINAL POINT I WOULD LIKE TO MAKE ABOUT THE SIDNEY FACILITY. THE BUDGET FOR THE STATION IS LESS THAN ONE MILLION DOLLARS. AT NO TIME HAS THE ARS JUSTIFIED THE CLOSURE AND RELOCATION OF THE SIDNEY RESEARCH CENTER AS COST SAVING. IN FACT, THE RELOCATIONS WILL RESULT IN MOVING EXPENSES AND THE LOSS OF VALUABLE SCIENTIFIC TIME IN REORIENTATION.

I ASK THAT THE COMMITTEE MAINTAIN AT LEAST CURRENT FUNDING FOR THE ARS FACILITY AT SIDNEY. CLOSING THE STATION AND RELOCATING THIS IMPORTANT RESEARCH FACILITY WOULD BE A TREMENDOUS LOSS TO THE NORTHERN PLAINS REGION.

I will be happy to provide the Committee with any additional information you might require.

My second request in the area of agricultural research concerns the problem of leafy spurge and noxious weed infestation on the Northern Great Plains.

Most of the members of the Committee are probably unfamiliar with leafy spurge. But to landowners and livestock operators in Montana, North Dakota, South Dakota, Wyoming and Nebraska, the problem of leafy spurge is as familiar as fire ants or medflies are in other parts of the country.

Leafy spurge is a deep-rooted perennial noxious weed with a root system that often reaches a depth of 20 feet. Infestations have been reported in 25 states and all of the Canadian provinces. Ninety percent of the leafy spurge grows in the five states I mentioned earlier.

Two years ago, the Agricultural Research Service estimated that 3 million acres of Northern Plains rangeland was infested with leafy spurge. Today, the estimates have grown to 5 million acres. The infestation of leafy spurge has grown largely because of the limited effectiveness of present chemical treatments and the high cost of controlling the weed. It costs $400 an acre to treat the weed. This price is difficult to justify when the selling price for an acre of rangeland is in the same ballpark.

There is some hope. Leafy spurge is native to continental Europe, central Russia and Siberia. It is not a serious weed problem in these areas because there are a number of predatory insects that keep its population manageable.

The cooperative research proposal before you would merely continue the work of scientists who have traveled to Europe before to collect a variety of these natural enemies. But collecting these insects is only the first step. Scientists must be absolutely sure that they do not create a new problem by addressing an existing one.

Years of testing will be necessary to make sure that these insects do not destroy productive crops along with the noxious weeds. There is also the need for additional research into more cost-effective chemical control of leafy spurge.

I have met with many members of the research community in Montana and with personnel from the Agricultural Research Service. They all agree that we need to get started on an integrated research program for the control of leafy spurge.

I am asking the Committee for $300,000 for this research program. The program would run for a period of at least 3 years and the Agricultural Research Service would coordinate its research with Montana State University.

The details of this cooperative research program are laid out in the two page summary attached to my statement. I am confident that if you question the Agricultural Research Service they will tell you of the importance of this research.

Mr. Chairman, thank you again for the opportunity to present my views before the Committee. I will be happy to provide any further information to the Committee or answer any questions you might have.

Letter From Orville G. Bentley

FEB 10 1983

Honorable Max Baucus
United States Senate
706 Hart Building
Washington, D.C. 20510

Dear Senator Baucus:

Reference is made to your request for additional information regarding the proposed closure of the Agricultural Research Service (ARS) facilities located at Sidney, Montana.

In providing background material as to why we have embarked upon our program to redirect our agricultural research efforts, we would first point to a report which was issued on January 14, 1983, by the General Accounting Office (GAO) entitled "Federal Agricultural Research Facilities Are Underused." This report was very specific in its recommendations to the Secretary of Agriculture. It recommended that the Secretary develop a plan to consolidate agricultural research activities at fewer locations, thereby, allowing greater ~~scientist~~ interaction and more efficient use of equipment, facilities, and administrative resources.

The GAO report recommended that the comprehensive plan should include consideration "of the likely impact on individuals and local communities, long-term planning and good justificiations for closing laboratories... ." The report also pointed to the need for establishing research priorities, adding: "The criticality of the need for doing research at a particular location is an important element to consider in developing plans to retain or close a research location."

In addition to the GAO report, the Office of Technology Assessment issued a report in December 1981 stating that "ARS had more field locations than were needed to carry out effective national and regional research within present fund limitations and personnel ceilings."

These reports have not been taken lightly by the Department of Agriculture.

Agricultural Research priorities have been established. They are:

1. Research directed at increasing plant and animal productivity.
2. Research directed at conservation of our land and water resources.
3. Research directed at increasing the American agricultural share of the world market.

Before undertaking massive changes in the directions of agricultural research, the research service established criteria for the program which is now commonly referred to as the ARS Redirections Plan. The Redirections criteria:

> "ARS' responsibility is to conduct research which is: National in perspective; long-range, high risk and requiring unified planning, continuity of effort and stable in environment, not undertaken by other agricultural research institutions and uniquely a Federal responsibility. Management considerations include determining if research projects are near completion, properly located, housed in adequate facilities, and, have a satisfactory rate of scientific output."

As a part of this plan, the research service determined that the six research programs presently located at Sidney, Montana, could be consolidated into other ongoing research programs.

To be more specific, the research service's determination of Redirections is the result of recommendations from ARS Regional Administrators and programs personnel. The proposed Redirections Plan has been reviewed and approved by the ARS Agency Administrator, the Assistant Secretary of Science and Education and the Secretary of Agriculture.

A total of $45 million in research project funds are redirected from lower priority programs to higher priority programs. Every effort is being made to comply with the recommendations of the GAO during this process.

The decision was reached in early January to proceed with the "location close-out" phase of the Redirections Plan without delay in order to provide for an orderly transition of programs and personnel. The second phase, involving programmatic changes, is being submitted to the appropriate committees of the Congress as recommended by the GAO.

With the above description of the ARS Redirections Plan, we can now detail the reasons for the closure at Sidney. By program:

1. Salinity-saline Seep Control with an annual budget of $171,000, one scientist and four technicians. Field experiments on saline seepage have been completed. A handbook on saline seep control has been

prepared and related publications are nearing completion. Funds will be redirected to strengthen water management systems research at Orono, Maine.

2. Water Use Efficiency with an annual budget of $256,000, two scientists and three technicians. Developing methods to increase the water use efficiency of dryland crops in arid and semiarid areas is an important part of our efforts to increase plan productivity. Current plans call for concentrating such efforts for the Great Plains at four locations: Mandan, North Dakota; Akron, Colorado (with help from Fort Collins, Colorado); Bushland, Texas and Lubbock, Texas. Such work at Sidney would be transferred to strengthen efforts at Akron on research water conservation and use. Part of the funds for water use efficiency would be transferred to Boise, Idaho, to strengthen the range research effort there.

3. Soil Fertility research with an annual budget of $266,000, one scientist and two technicians. ARS is concentrating and strengthening its research programs at fewer locations in the Great Plains. This research has focused to a large degree on irrigated croplands conditions or riverbottom soils near Sidney. Because of the large amount of dryland farming in the Great Plains, the funds in this project will be redirected to Miles City, Montana, to develop improved range fertility and plant management systems for range production in the Northern Great Plains. Range fertility research can be done better where research livestock can be used to evaluate improved range fertility practices. Miles City is a livestock research center with expertise in range fertility. In addition, some of the funds will be reassigned to Mandan, North Dakota for research on water conservation and use.

4. Hydrology research with annual budget of $107,000 and one scientist will be reassigned and consolidated at Fort Collins, Colorado.

5. Erosion research with annual budget of $56,000 and one technician will be reassigned to Boise, Idaho. One technician is assigned to this program. The planned research on watershed management (hydrology and erosion/sedimentation) at Sidney is completed. Results from revegetation of rangelands at Ekalcka in cooperation with the Bureau of Land Management have been summarized and published. Earl Neff, the hydraulic engineer who led this work, has announced his retirement and his funds will be transferred to Fort Collins, Colorado and Boise, Idaho, to reinforce the outstanding watershed groups there. (This transfer of funds was planned regardless of the fate of the Sidney laboratory.) The group at Fort Collins has been assigned the national responsibility of extending erosion prediction techniques from a field to a watershed scale to meet soil conservation research needs. The group at Boise is developing a range management model for the West.

6. Tillage research with an annual budget of $150,000, one scientist and one technician. Developing improved and economical tillage systems for improving sodic soils and for moisture conservation in the North Great Plains is a high priority project designed to help farmers in the Great Plains. ARS is concentrating its efforts at Mandan, North Dakota. The work at Sidney will be redirected to Mandan to make its program more effective than having two very small programs dispersed at two locations.

In addition to the laboratory facilities in Sidney, ARS leases soil conservation district land at Culbertson for field experimentation. The latter property will continue to be used by the ARS laboratory in Mandan for field research. The current plans are to retain a technician in Sidney during the immediate future while equipment and supplies are transferred to other locations and while decision are being made on disposition of the laboratory property.

We hope this explanation of the Redirections Plan, as it relates to the proposed closure of the Sidney programs, will serve to answer your questions. We realize

the impact on personnel and the community and we have attempted to take these matters into consideration within our Redirections Plan. Should you need any additional information, please let us know.

Title: An Integrated Approach to Controlling Leafy Spurge and Other Deep-Rooted Perennial Weeds.

Scope: A comprehensive study of herbicides, cultural techniques, and biological control agents and their impact on perennial weed growth, physiology, and ecology. Targeted areas will be croplands, rangelands, forested lands, and federal lands.

Principal Investigators: P. K. Fay, R. M. Nowierski, M. E. Foley [1]/ M. K. Jackson [2]/, and USDA/ARS Scientist

Justification:

Because MSU lies in the center of a vast land area from Fargo, North Dakota to Pullman, Washington to Fort Collins, Colorado, it seems appropriate to consider Montana State University as a central site for federal research programs. A considerable amount of state funds is going into weed research but additional support in the form of federal funding is needed. MSU could become a center of research excellence for the large northern region where limited federal weed research dollars are now placed.

Action Plan:

This proposal seeks to develop a comprehensive USDA/ARS program for integrated pest management of leafy spurge and other deep-rooted perennial weeds. Two phase of the program are planned.

1. The first will address basic research needs, integrated through a comprehensive multidisciplinary approach which will include areas of chemical, cultural, and biological control methods and their impact on perennial weed growth, physiology, and ecology. USDA/ARS personnel and Plant and Soil Science personnel will cooperate in this phase to determine the vulnerability to control of leafy spurge and other noxious weeds.

2. Once the basic research needs are satisfied, our objectives will turn toward an applied program involving the principles and practices of integrated perennial weed management systems.

Personnel and Duties:

1. USDA Scientist. Conduct basic research on the biology and life cycle of leafy spurge and other deep-rooted perennials.
2. Biological Weed Control Specialist. Basic and applied research in all phases of biological weed control. Responsible for graduate teaching. Robert Nowierski.
3. Herbicide Physiologist. Basic and applied research on the biology and physiology of annual and perennial weeds in small grains and forage crops. Basic research on the mechanism of action of herbicides. Responsible for graduate teaching. Michael Foley.
4. Applied Weed Scientist. Applied research in all phases of weed control in small grains, pasture, and rangeland production. Responsible for undergraduate teaching. Peter Fay.
5. Weed Extension Specialist. Collate and disseminate practical weed control information to the public. Mike Jackson.

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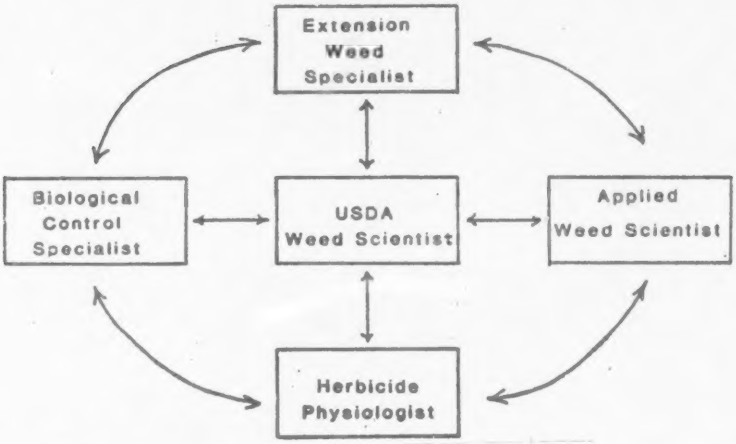
[1] Dept. of Plant and Soil Science, Montana State University, Bozeman, MT 59717.

[2] Cooperative Extension Service, Montana State University, Bozeman, MT 59717.

INTEGRATED WEED RESEARCH PLAN



Possible Funding Sources:

USDA/ARS Research Position	$150,000
USDA - Specific Cooperative Agreement with MSU, Plant & Soil Sci. Dept.	$150,000

Project Duration:

On-going.

PROPOSED WEED RESEARCH PROGRAM

Montana Agricultural Experiment Station
Montana State University
May 14, 1982

EXECUTIVE SUMMARY

Noxious weeds are costing Montana farmers and ranchers millions of dollars in income each year. In fact, the problem has become so serious that agricultural leaders throughout the state have asked the Agricultural Experiment Station, the Cooperative Extension Service, and the State Department of Agriculture to develop a statewide weed management plan that can be implemented to bring the situation under control. Built in the plan is the active involvement and participation of county commissioners, local weed boards, appropriate state and federal agencies, relevant agricultural organizations and groups, plus the farmers and ranchers themselves. The attached document contains details of the MAES plan.

The Montana Agricultural Experiment Station is responsible for basic and applied research in the state. A team of weed scientists has been assembled to address weed ecology and chemical control, physiology, and biological control. The program is in serious need of additional support to function efficiently and effectively. The Experiment Station request includes the addition of three research technicians, three graduate assistants, operations, and capital totalling $150,000-$160,000 per year. This addition to the Experiment Station funding base will be used to reinforce the existing weed research programs at the Bozeman campus and the Research Centers.

In a separate funding request through the long-range building program, Montana State University has identified greenhouse facilities as a top priority need for agricultural research and education. This $5.3 million facility addresses a wide range of research and teaching functions associated with agriculture. Included in this request is a component vital to weed research and education. A part of this facility thus becomes an important component for completing the total statewide weed management plan. Details of this facility are available in a separate document.

PROPOSED WEED RESEARCH AND EDUCATION PROGRAM
Montana Agricultural Experiment Station

Several perennial weeds are rapidly becoming major economic threats to cropland and rangeland in Montana. The weed research and education efforts in Montana are below those of other neighboring states and below the needs of Montana.

Additional funds are required to develop a better state-wide research and education program. With the current program and funds, we are unable to keep up with weed problems now confronting farmers and ranchers in the State; therefore, an accelerated program over the next 5 to 10 years is needed. The short-term goals of this program will be to identify three to five major weed species and to design a well-coordinated major research and education effort to implement their control. The long-term goals of this program will be to establish a baseline of research and education activity and develop an integrated and effective approach to biological, chemical and cultural weed research and education in Montana.

Some phases of the weed plan have begun but additional funds are needed to reinforce the efforts now underway in Plant and Soil Science and at the Research Centers.

Montana State University, Bozeman

Three weed scientists currently have appointments in Plant and Soil Science:

Dr. Peter Fay -- Weed Ecology
Dr. Michael Foley -- Weed Physiology
Dr. Robert Nowierski -- Biological Weed Control

These faculty members will be conducting basic and applied research on weeds that infect rangeland, forestland, and cropland. They will cooperate with Research Center and Extension personnel in conducting workshops, clinics, tours, and demonstrations as needed around the State. This will aid in bringing useful information to the public. They will also develop an educational program that involves undergraduate and graduate teaching programs. A sound teaching program is the foundation to a research program and will attract good students to the program who can do adjunct research to the faculty. Formal courses taught will be:

1. Weed Biology
2. Weed Science
3. Herbicide Action
4. Biological Weed Control
5. Advanced Weed Science

Two full-time technicians trained in field research techniques will be added. The technician will be capable of presenting research results and will add to the quality and quantity of research conducted. Graduate students will conduct research and will spend time at the Research Centers during the summer. Each scientist will be active in seeking grant money to support ongoing programs.

Agricultural Research Centers

Some weed research and education activities are already underway at the Research Centers. The biological weed control program in Montana was initiated at the Corvallis Research Center. This program under the direction of Jim Story has pioneered efforts in developing and releasing insects which have demonstrated or suspected capacity to control weed species. This basic research work will continue at the Corvallis Station in cooperation with the biological weed control scientist at Bozeman. The Corvallis program will play a major role in the propagation and distribution of beneficial insects for weed control. Weed research and information activities are also in progress at the Northwestern Center, Kalispell; the Central Center, Moccasin; the Western Triangle Center, Conrad; the Southern Center, Huntley; and the Eastern Center at Sidney. These programs are directed primarily toward the evaluation of current chemical and cultural programs but do some cooperative work in the biological weed control area. They also work cooperatively with the Bozeman based scientists.

An improved outreach research program will be established at four Research Centers. The Corvallis, Moccasin, Sidney, and Huntley Research Centers will be the focus for range and crops weed research and demonstrations in the State. Increased program emphasis will occur through a combination of funding and increased interaction with the MSU based personnel. Their roles will be to conduct applied research including economic analyses, and to assist with demonstration and educational programs throughout the state. This work will be done on Research Centers as well as cooperator farmer and rancher locations. The IPM model of information generation and delivery will be utilized wherever possible. The information distribution program will be carried out in cooperation with weed control districts, government agencies, and other appropriate organizations. The outreach programs will be coordinated with the research and extension personnel in Plant and Soil Science. It is proposed that Research Centers located at Corvallis, Sidney, Moccasin and Huntley be considered for outreach research and education programs to address the following areas:

1. biological control
2. rangeland
3. forages
4. small grains
5. horticultural crops and ornamental plants
6. forested lands
7. row crops

The program at each Research Center will receive sufficient funds to conduct research and carry out appropriate education activities. This will involve several presentations per year in the surrounding areas to ensure that the weed problems are addressed. The intent is to reach the majority of the producers in the area. Tours and demonstrations of the latest research findings with economic evaluations will be held at each Research Center and appropriate off-Station locations.

Funds for the Research Centers are being requested in two areas. An additional technician will be supplied to the research centers. The technician will have the responsibility of assisting in the research and distributing information to the public. Operation funds will provide adequate supplies, travel, and equipment for each scientist's program. Graduate research assistants located on the MSU campus will work with the Research Centers in the summer.

IMPLEMENTATION

With the recent filling of two weed science positions in Plant and Soil Science and with several Research Center programs in place, the proposed program is already in initial stages of development. The new scientists in Plant and Soil Science will bring valuable biological weed control and weed physiology expertise into the Department to supplement the ongoing weed ecology research and teaching. The ongoing programs in Plant and Soil Science and the Research Centers in the State are addressing the weed concerns but simply cannot keep up with the job. Additional resources are needed to launch a major program to accomplish the following objectives:

Objectives 1982-85

1. To establish M.S. and Ph.D. degree graduate programs in weed science in Plant and Soil Science.
2. To conduct basic research programs on biological weed control, weed ecology, and weed physiology by the three weed scientists in the Plant and Soil Science Department. These programs will have both immediate and long-range applications to the weed problem in the State. Major weeds to be addressed will be leafy spurge, spotted knapweed, Canadian thistle and wild oats.
3. To conduct field trials on current recommended or new chemicals, biological agents, and cultural practices for weed control in cereals and forages.
4. To develop economic analysis on applied research results and determine practicality for production agriculture use.
5. To integrate and reinforce the Plant and Soil Science, Research Center, USDA, Regional and International personnel and facilities in biological weed control.
6. To conduct demonstration workshops and educational programs throughout the State on proven methods of weed control. The primary audience for these activities will be the growers and public agencies who have weed problems.
7. To coordinate information distribution with weed districts, government agencies and other organizations having land managment responsibilities and contact with the public.
8. Seek additional grant money to complement existing State-funded programs.

Objectives 1985-90

1. To identify other weed problems in the State.
2. To continue the applied/basic research efforts in maintaining the necessary weed research and educational programs for the State.
3. To examine any new developments in the areas of weed science and to concentrate on an integrated approach to controlling weeds in the State involving biological, cultural, and chemical methods of control.
4. To publish appropriate material to reach the scientific and farmer communities.
5. To establish a proven program that can attract continuing funds to maintain the necessary weed research and educational programs for the State.

COUNCIL FOR AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING

STATEMENT OF DAVID C. FARLEY, CHAIRMAN

ACCOMPANIED BY:
NANCY S. COLE, MAINE
RICHARD JOYCE, OREGON
JOSEPH KING, NEW YORK
DAVID C. FARLEY, MICHIGAN

Senator COCHRAN. Our next group is a panel representing the Council for Agricultural Research, Extension, and Teaching: Mr. David C. Farley, Ms. Nancy S. Cole, Mr. Richard Joyce, and Mr. Joseph King.

We welcome you to the committee. Who is the spokesperson for the group? If you could identify yourself, you may proceed.

Mr. FARLEY. Thank you, Senator Cochran. I am David Farley, chairman of the Council for Agricultural Research, Extension, and Teaching. On my left, to your right, is Mr. Joseph King from New York. On my right, your left, is Nancy Cole from Maine. And then on the far end is Richard Joyce from Oregon.

As we begin our comments, I also, Senator Cochran, would like to congratulate you on the recognition you are receiving from 4–H as a distinguished alumni. We are very pleased you are being so honored.

Senator COCHRAN. Thank you.

RESEARCH, EXTENSION, AND TEACHING

Mr. FARLEY. I also would like to assure you and your colleagues that we recognize the type of support that has come to agricultural research, extension, and teaching. We recognize you as individuals who support these necessary programs, but we also are here because we feel it is important that we impress upon you that the programs of research, extension, and teaching in agriculture are vital and important not only for those of us who are involved in agricultural production, but vitally important for all of the citizens of our country.

The Council for Agricultural Research, Extension, and Teaching (CARET) is a national council made up of farmers, homemakers, business people, and others who are the clientele of the Nation's agricultural research and education programs. CARET is a component of the division of agriculture of the National Association of State Universities and Land-Grant Colleges. We work very closely with the panel that preceded us this morning and their colleagues in advisory capacities at the county, State, regional, and national levels.

Another thing we do want to assure you of is that in all of these programs—agricultural research, extension, and teaching programs—there are numerous instances whereby people such as ourselves at all levels are providing advisory input. There is an assurance that the programs are those that are pertinent to the needs of agricultural producers, to the needs of the citizens of rural America, and the needs of the citizens of America as a whole.

We do endorse the budget proposal as introduced to you by the National Association of State Universities and Land-Grant Colleges. We have a few remarks that will be supplemental to our written statement that has been earlier presented. Leading off will be Mr. King with some remarks.

[The statement follows:]

STATEMENT OF THE COUNCIL FOR AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING

Mr Chairman:

As users of the nation's agricultural research and education programs, we recommend adoption by your subcommittee on agricultural appropriations the Fiscal Year 1984 budget recommendations submitted by Dean John Dunbar, chairman of the Division of Agriculture Budget Committee of the National Association of State Universities and Land-Grant Colleges.

The Council for Agricultural Research, Extension, and Teaching (CARET) is a national council made up of farmers, homemakers, business people, and others who are the clientele of the nation's agricultural research and education programs conducted by the land-grant institutions and USDA. CARET is a component of the Division of Agriculture of the National Association of State Universities and Land-Grant Colleges. Our council and its volunteer members work closely with the administrators of these institutions at county, state, regional, and national levels to provide program review, advice, and support. In this context, our definition of agriculture encompasses the breadth and depth of the traditional program areas -- agriculture, home economics, community resource development, and 4-H youth development.

CARET members have been actively involved in the formulation of the Division of Agriculture Fiscal Year 1984 budget recommendations. We represent the people who, like many in your districts, believe in and are part of the finest agricultural system in the world. Therefore, the current budget recommendations represent our views and have the full support of people who benefit from these programs.

The secret of American agriculture is knowledge. Our agricultural technologies -- including machinery, improved plant varieties and management strategies -- are all based on knowledge generated by research. Our farmers, agricultural suppliers and food processors are well-trained people who bring diverse information and technologies together to achieve efficiencies and productivity unmatched in the world. The information base from which they operate is kept fresh and relevant by the continuing education efforts of Cooperative Extension. Extension also functions as an early warning system that alerts researchers of developing problems.

We believe that additional appropriations are essential to maintain the research and educational base of the land-grant system and to address special issues such as nutrition education, aquaculture, and renewable resources.

We see a particular need for support of teaching programs. Currently, there is an estimated 13 percent shortfall of trained agricultural scientists. Projections indicate a growing shortage in the future. The future of agriculture -- in fact the well-being of our nation and the world -- depends upon well trained scientists, producers, agribusiness people and others to meet the problems of today and challenges of tomorrow. We endorse public investment in the development of needed human capital.

As citizens we believe a strong and efficient food and agricultural system is vital to our nation's economy and the health and welfare of our people. We believe agricultural research by our land-grant universities is vital to sustaining the remarkable productivity of American agriculture. We are convinced public investment in agricultural research is too low. With an annual rate of return in the order of 50 percent, research is definitely under valued. Such a valuation compares to stocks whose price-earnings ratios are too low. Currently, investment in agricultural research earns a higher rate of return than any other investment.

Agricultural research helps us as agricultural producers and agriculturally related business people, however, the greatest benefits are to consumers. We know this because we are consumers and we also benefit from an abundant, low-cost food supply. Yes, we are sometimes frustrated with low farm prices but we recognize the fragile nature of agricultural production. A new disease, an early frost or a drought can change "surplus" to scarcity. Research is our insurance policy against such disasters. As users, we know the cooperative state agricultural research system is a proven, productive enterprise which merits Congressional support.

Support for Extension programs in real dollars has been static for more than a decade. As users, we are concerned that such neglect will eventually cripple a program vital to people and American agriculture. A recent report entitled Extension in the 80s confirms our belief that the cooperative extension concept is as sound today as when it was formulated 69 years ago. Congressman Brown's oversight hearings last year also support this view.

The increased complexities of our businesses and lives demand an expanded knowledge base. This in turn demands proportionate expansion of Extension to deliver the knowledge generated by the land-grant system, the USDA, and related agencies to the people who need it. Most importantly, we know we can trust the information from Extension as we try to solve our problems.

Programs like the Expanded Food and Nutrition Education Program and Urban Gardening are available to families seeking ways to deal creatively with current economic problems in both rural and urban communities. The youth of our country are given opportunities to build skills and improve attitudes through 4-H activities. Through Extension, community leaders and organizations are provided the information resources necessary to address local problems and make sound decisions.

In the world today, there is no other institution, public or private, that is more capable of helping people to help themselves. Extension helps people to recognize and deal with the wide range of problems confronting society today. However, during the fiscal austerity of the last decade more than just the "fat" has been pared from the Cooperative Extension Service budget. There have been substantive cuts. An increase in funding over the Executive Budget is urgently needed if the Extension Service is to meet the challenges of today and tomorrow.

There is a grave need for improved technology in our nation's agricultural industry. Advances must be made to insure that American farmers maintain the efficiencies to remain competitive in the world market. Only such measures will guarantee the betterment of people today and enhance the quality of life for future generations. A strong public sector funding commitment is vital to maintain the unique research, extension and teaching partnership of our land-grant system. The ultimate benefactor of this system continues to be the American consumer who is able to feed a family with as little as 15 percent of disposable income -- a feat not managed in any other society.

Agriculture is the largest industry in this country. Its very diversity guarantees strength to our country's economic well-being. Agriculture's contribution to our balance of payments is not equaled by any other industry. A healthy agriculture sector is imperative to our nation's economic recovery. However, to maintain economic vitality, agriculture needs a constant flow of improved scientific talent, knowledge and technology. Public investment in the land-grant system -- the scientific and educational backbone of United States agriculture -- makes good economic sense.

Finally, we wish to express our deep appreciation to you, Mr. Chairman, and your colleagues on this subcommittee for your understanding and commitment to our nation's food and agriculture system. We especially value your support of research, extension, and teaching.

STATEMENT OF DR. JOHN O. DUNBAR

Mr. Chairman and Members of the Subcommittee, I am John Dunbar, Dean of Agriculture and Director of the Agricultural Experiment Station at Kansas State University in Manhattan, Kansas. I serve as chairman of this distinguished panel representing agricultural research, teaching, and extension in our land grant universities. The other members are:

Dr. Don Crossan, Dean, College of Agricultural Sciences, University of Delaware
Dr. John Woeste, Dean, Cooperative Extension Service, University of Florida
Dr. Gene Love, Assoc. Dean of Agriculture, Pennsylvania State University
Dr. Richard Skok, Dean, College of Forestry, University of Minnesota

Dr. Sidney H. Evans, Associate Dean, North Carolina Agricultural and Technical State University
Dr. Hoover Carden, Administrator, Extension Programs, Prairie View A&M University
Dr. Richard Dierks, Dean, College of Veterinary Medicine, University of Illinois
Dr. Malcolm Purvis, Asst. Dean for International Programs, University of Minnesota
Dr. Elizabeth Elliott, Asst. Dean, Home Economics Programs Iowa State University

We represent the division of agriculture of the National Association of State Universities and Land Grant Colleges. Our purpose is to present to you the budget requests of the division of agriculture for federal support of the Agricultural Experiment Stations, the Cooperative Extension Service, and Resident Instruction Programs of the land grant universities.

On behalf of all the research scientists, classroom teachers, extension specialists, county agents, and administrators of the land grant universities, we wish to commend you for your great knowledge and understanding of the vital importance of these institutions in providing food and fiber for the people of this nation (and for export) and maintaining a sound, efficient, progressive agriculture and food industry. We also wish to thank you for your strong support of this important work. Through your support of these scientists and teachers (both classroom and extension), we have been able to develop and teach the scientific and technical information which has made American agriculture the envy of the world.

In recognition of your time constraints, I will make some brief statements concerning our recommendations. Our panel members have each prepared a written statement of their specific requests and the interests and concerns of the groups they represent. Our requests and these statements are submitted for the record. Panel members will be happy to respond to specific questions about the programs or functions they represent.

Looking to the next decade and beyond, we firmly believe than an expanded scientific research and education base for agriculture will be required if we are to provide food for the people, help improve farm incomes, maintain a high level of exports, conserve our non-renewable soil, water, and energy resources, maintain the quality of our environment, improve human nutrition, and preserve the family farm. We are also concerned that the rate of increase in agricultural production has dropped from about 2% per year in the 1950s and 1960s to only a little over 1% in the 1970s and current developments may cause it to drop still further. Five major developments have occurred which are overtaxing our present research and extension resources.

They are:

1. Many new problems demand attention. During the 1970s, many new problems demanded the attention of our research and extension personnel at the land grant universities. Examples are maintaining the quality of our environment, developing alternative sources and ways to conserve energy, improving methods of soil and water conservation, and developing ways to control exotic animal diseases. Governmental regulatory agencies required the development of safer alternatives to banned pesticides. A whole new societal emphasis on the environment and other issues has created competition for dollars formerly

spent on agricultural research and extension. Much of our agricultural research manpower has been diverted to work on these problems.

2. A larger proportion of our research base is required just to maintain current high levels of productive efficiency. A higher proportion of the research effort is now required simply to maintain these higher levels. For example, new pesticides must be developed when insects, diseases, and weeds become resistant to available chemicals. Also, disease resistant varieties of field crops must be replaced about every five years to counteract biological changes. This will continue.

3. More and more manpower is required to develop and integrate complex new systems of scientific information at every phase of the whole food chain. This is true all the way from basic research to the ultimate consumer. This is true for the development of optimum genetic combinations for high yielding, high quality, insect resistant, disease resistant, drought tolerant crop varieties. It is true for the development of minimum tillage systems of farming which must integrate best adapted varieties, cultural practices, soil fertility programs, insect and disease control, and expensive farm machinery combinations. It is true for the development of highly specialized livestock production systems which must integrate complex feeding rations, disease and insect control practices, material handling and management practices. It is true for integrated pest management. It is true for reproductive management systems in livestock which must integrate nutrition, estrus control, animal health maintenance, and numerous other variables to attain greater efficiency in use of expensive breeding herds. It is true for management of farms which most adopt the most profitable combination of livestock and crop enterprises, cost-effective and profitable systems of production for each farm enterprise, the least cost combinations of power and machinery if they are to survive the current economic crisis and those which will undoubtedly follow.

In order to achieve each new and higher level of production efficiency, the scientific development and integration of all the important units of information required to optimize these systems will take more and more time and manpower. This is as true for extension work as it is for research.

4. Whole new fields of applied research must be developed to exploit new discoveries, solve new problems, and achieve new possibilities. The latest example is genetic engineering, which is applicable in crop and livestock production, disease control, and many other fields of agriculture. Another has been the whole field of protein chemistry in nutrition made possible by almost infinite combination of amino acids. A third is the use and application of computer technology. There are many others. Nationally, the diversion of manpower to address these new, high priority areas of research and extension has been at the expense of work in already established areas necessary to improve efficiency, productivity, and profitability of agriculture.

5. Expanded basic research is needed to open up new frontiers of scientific knowledge. This research will be necessary for producing food in the year 2000 and beyond. The National Academy of Sciences has identified seven areas as holding particular promise. They are 1) Genome structure and gene expression

in plants, 2) Plant developmental biology, 3) Plant and pest interactions, 4) Organisms in the Rhizosphere, 5) Photosynthetic energy conversion and carbon metabolism, 6) Mineral uptake deficiencies and excesses, 7) Biological nitrogen fixation.

Thus for these reasons, it is our conclusion that the present manpower base in agricultural research and extension, including that in the USDA Agricultural Research Service as well as the state experiment stations is inadequate to sustain and improve food production in America. Some improvements in productivity may be achieved through reorganizatin, reallocation of resources, changes in emphasis, improved quality of research and modernization of facilities and equipment. This is being done. However it will not offset the needed increases in total manpower and resources to adequately fulfill our mission.

Combined agricultural research manpower of the USDA and state agricultural experiment stations in 1966 amounted to 9806 scientist years. In 1979, it was 9971, an increase of only 2% in 13 years. For the USDA the number of scientist years actually declined during this period from 3660 to 3451. This trend is continuing. In the state agricultural experiment stations, on the other hand, the number of scientist years increased from 6141 to 6520. But that is only a 6% increase in 13 years. That is an increase of less than one scientist per year per agricultural experiment station, far less than is needed in each state to carry the vastly increased research load.

Further, at the state agricultural experiment stations a larger share of the burden of this research load is now being carried by state and private funding than in the late 1960s. The following small table shows how the shares of the burden have changed:

	1966	1979
State	57%	64%
Private	4%	5%
Federal	39%	31%

Data for his analysis are taken from page 205, An Assessment of the United States Food and Agricultural Research System, Office of Tehnology Assessment, United States Congress.

We believe that an increase in federal support would materially increase the capacity of the state agricultural experiment stations to meet their expanded responsibilities in providing food for the people and solving other agriculturally related problems. The current recession has made it doubly hard for states to carry their increased share of this burden. In fact it is causing many states to reduce numbers of research scientists in their agricultural experiment stations - and extension specialists as well.

The situation in the Cooperative Extension Service is much same as in the agricultural experiment stations. The new problems which have demanded increased research attention also demand increased attention of extension specialists and county agents. As it is with research, extension specialists and agents also face the increasing complexities of integrating whole systems of information and bringing them to bear to help farm people solve their problems. For example, one critical area is the development of computer software for farm use. This has been severely retarded due to lack of extension specialist manpower. Most of the research information required for developing computer software in agriculture may be found only in the College of Agriculture at Land Grant Universities. Due to the current income crisis, farmers need this help more than almost any time in history.

Another critical area is integrated pest management. Another is integrated reproductive management. Both of these ares are included in our request for section 3d funds.

Total professional manpower in the State Cooperative Extension Service increased from 15482 people in 1970 to 17009 in 1981, about 1% per year.

Cooperative Extension Professional Workers

	1970	1981	Percent increase 1970-1981
State	3956	4222	7
County	11526	12787	11

Again, this increase has been small indeed in relation to the increased need and demand for assistance.

Most of the increase in professional extension manpower has been at the county level, paid for by county and state funds. The federal share paid for funding Cooperative Extension Service work has declined from 45% in 1970 to 37% in 1981. On the other hand, the state share has gone up from 37 to 43% and the county share from 16 to 18%. Non tax funding has remained at 2%.

Large increases are going to be required in the number of scientists trained at the PhD level if we are to meet current and future needs for developing, disseminating, and applying needed scientific information in food production and for solving related problems in the years ahead. They will be needed to conduct the private and public agricultural research, to teach undergraduate students, to train MS and PhD students, and to conduct extension educational programs. Large numbers of scientists trained under the GI Bill after WW II are reaching retirement age. Replacing them will add to the demand during the next few years.

The total number of Doctoral degrees in selected food and agricultural specializations in 1979/80 compared with 1971/72 was as follows:

Academic Specialization	1971/72	1979/80
Agricultural Economics and Business	166	169
Agricultural Engineering	70	67
Agronomy	148	178
Animal Science	142	140
Biochemistry 1/	65	70
Cell Biology 1/	0	1
Food Science	76	96
Genetics 1/	57	55
Human Nutrition	124	150
Molecular Biology 1/	1	0
Pathology 1/	20	22
Plant Physiology 1/	28	8
Total	897	957

1/ Academic specialization which prepares graduates for employment in several scientific fields. Data in table denote only those graduates estimated as qualified for employment as food/agriculture scientists and professionals.

This is only a 7% increase for the period - about 1% a year. Indications are that for 1980-81 and 1981-82 the number of PhD degrees granted in agriculture was below the 1979-80 levels.

Thus, it seems quite obvious that it will be, several years before the supply of PhDs being granted in agriculture will be large enough to meet expanding needs.

Details of our agricultural research, teaching and extension budget requests for the Land Grant Universities for F.Y. 1984 are included in our statement entitled "Securing America's Food and Agricultural Resources." We are submitting that statement for the record.

We will be happy to answer any questions you may have.

STATEMENT OF DAVID C. FARLEY

April 19, 1983

The agricultural industry of the United States is currently confronted with a critical problem; a 15% decline of grain exports over the past two years resulting in sharp declines in grain commodity prices and continued declines in net farm income. It is anticipated that average net farm income for 1982, the return to the farm owner/operator on his labor, management, land, capital and other resources will be about $8,000.00; below poverty level. The agricultural industry of America is realizing its deepest depression since the '30s.

Factors contributing to agriculture's depression are such that a recovery of the economy of the nation will not automatically result in a recovery for agriculture. On the other hand, a recovery of agriculture will speed and strenghten the recovery of the nation. The decline in grain exports is a direct result of, and reaction to the Russian grain embargo of 1979 imposed by our government. Another factor of the decline, paradoxically, is the strengthing of the U.S. dollar. The decline can, and should be taken as a sign of foreign competition. There are reasonable options available to importers.

We must not underestimate the ability of other nations to produce and export agricultural goods in competition with the U.S. farmers. Increased and continued emphasis on the development and implementation of agricultural technology is a requisite if our agricultural industry is to be compitative in the world market. Our Land Grant institutions with their programs, staff and facilities for agricultural research, extention and teaching are our best means of mobilizing to resolve this critical issue. With decentralization and diversity, the programs of these institutions are relevant to the problems and needs of the clientele farmers and agri-businessmen. As a farmer I can assure you that they are effective and they do make a difference.

I therefore urge the Congress to consider, as a minimum, those appropriations for FY '84 for Science and Education within the U.S. Department of Agriculture as suggested by the National Association of State Universities and Land Grant Colleges in their testimony before this committee.

In my opinion, public funding is the means by which we can most quickly and effectively develop and mobilize new technology for agriculture. Public funding is justified because both the economy of our nation and the welefare of our consumers will be enhanced. The furtherance of agricultural technology will enable our farmers to make more efficient use of their productive resources. Reduced costs of production in the agricultural sector quickly translate into lower prices, export and domestic. A more competitive posture in the world market will greatly strengthen our agricultural industry and speed the nations economic recovery.

BACKGROUND AND INTRODUCTION

Mr. KING. Senator Cochran, I would, like Senator Burdick, threaten you with a biographical sketch, but rest assured I will recite a summary. The reason I warn you is that I must call your attention to the fact that more than half of the years that have elapsed since President Lincoln signed the Morrill Act, the land-grant college programs have had a dominant influence on my life. I was born and raised on a farm in Boone County, Nebr. My father broke the prairie sod with a walking plow and shire horse. In 1918, I had my first 4–H Club project. I will remind you that that was only 4 years after the enactment of the Smith-Lever Act. After 10 years in 4–H Club work, I had 2 years at the University of Nebraska. I was one of the first in the county; I came East. People went West later. I went to Cornell University. I watched the programs. I guess my first awareness of things outside the land-grant funding, and so forth, was the debate on the McNary-Hagen. We saw the whole thing through the Depression, the AAA. As a matter of fact, I won the Rice Debate Stakes with the topic that the crop and livestock reduction programs of the AAA were not beneficial to American agriculture.

So it goes down through the years. I have watched these massive programs that Congress has made possible to meet various economic crises. More importantly, I watched the great growth, improvement, and progress made through research, extension, and teaching.

GRADUATE FELLOWSHIP PROGRAM

This morning, I will leave it there by endorsing what has been said on research and extension, and zero in on the $10 million graduate fellowship. As emeritus trustee of Cornell University, I feel very strongly about this subject. I think you know what an emeritus trustee is. It is one who is passed that age, but is still willing to make the commitment of gifts, work, and so forth. He can still speak in meetings, but he can't vote.

In the literature you have, there is a doom and gloom, and it is very factual. Through the country there is alarm at the drop in enrollment in the colleges of agriculture. There are reasons for this. I have come to the conclusion that our problems are there because the dean is admonished each year because our college exceeds the total enrollment set down by the provost of the university. We are having serious problems with our own legislature in the State of New York, but we all, throughout the country, must have this proposed funding of fellowship grants because the time is overdue. The facts are there. The need is there. I know from my long experience these grants are not concentrated. Therefore, we must have a system that will enable them to attract people and keep them going on for their advanced degrees.

Senator COCHRAN. Thank you very much, Mr. King.

Mr. FARLEY. The next participant is Mr. Joyce.

Mr. JOYCE. Mr. Chairman, my name is Dick Joyce. I am pleased to be here to represent faculty from all over the Nation and certainly honored to appear before your committee.

I am sorry Senator Burdick isn't here. I spent 4 years, courtesy of the Air Force, as an officer in his State. In fact, I took home someone to join me on my farm in Oregon.

[The statement of Mr. Joyce follows:]

STATEMENT OF RICHARD K. JOYCE

Mr. Chairman, my name is Dick Joyce. I own a nursery, orchard, and landscape farm near Portland, Oreg. I am certainly honored to be here representing farmers from all over this country for this subject.

Oregon, by its very diversity, with over 180 crops of economic significance made possible by our climate that goes from Mediterranean to high desert, makes it necessary to conduct research, extension, and teaching in an immensely wide arena.

I would like to discuss how this trilogy of research, extension, and teaching, through an investment, favorably impact the national economy to the benefit of farmers and consumers alike.

Even though I am not a dairy farmer, I would like to use cheesemaking as an example. I think we all appreciate the size of the dairy industry in this country and are aware of the economic problems currently inherent in that industry. These economic pressures dictate the necessity of seeking systems and technology to economize production and raise the quality of the product.

In commercial cheesemaking the most vulnerable step is starter culture performance which dictates whether or not cheese will be produced from the milk but also the quality of the cheese. Starter culture is composed of bacteria and the medium it is grown on. Approximately 20,000 pounds of starter culture is needed each day in a plant processing 2 million pounds of milk per day.

The greatest economic problem the cheese industry has had since the factory system began is virus or bacteriophage infections of the starter culture. Infected bacteria fail to perform in such a way to insure that the final cheese is edible or even safe for human consumption. The old system of combating infection was to rotate several different cultures. Nevertheless, when an infection occurred, as it did regularly because the virus constantly mutate and attack the culture, the entire vat would be lost.

Dr. William Sandine of Oregon State University and others began to focus on this problem about 6 years ago. They discovered a way of rescuing and cloning the few virus-resistant, fast-acting bacteria which survived the infection. Further, they developed a new way of growing the cultures to minimize stress effects and to generate large numbers of the active cells. Briefly, this new system involves use of four to six new unrelated starter strains for which no phages can be isolated in that factory. The exclusive use of the defined strain system has resulted in significant economic yields:

(*a*) Starter failure from phage infection was eliminated.

(*b*) Better cheese uniformity, consistency, and quality were achieved.

(*c*) The percentage of cheese graded "A" was increased 10 percent.

(*d*) Manufacturing procedures were able to be standardized.

(*e*) Ripening times were eliminated.

(*f*) Culture rotations were replaced with the single culture blend.

These improvements resulted in a revenue increase of over $1 million annually for a factory producing 25 million pounds of cheese each year. Factories were able to increase their production up to 50 percent. Now the new technology is used in plants manufacturing cottage cheese and buttermilk. The new medium for growing these cultures earned Oregon State University the 1982 Industrial Achievement Award from the Institute of Food Technologists.

I mentioned earlier the investment aspect of research—the cost for this entire program over the period of research was approximately $375,000 and the return I described above was for but one plant for 1 year. This technology is now being used all over this Nation and soon will be used throughout the world.

The total impact of this investment is incalculable as there is at least a multiplier effect of three as these new dollars ripple through the economy. I wish to emphasize this point as it is so important now as we are seeking methods for economic recovery.

In science, there would be no research without education and certainly vice versa. Without the means of extending this knowledge by distributing these new technologies and varieties there also would be no return.

This is but one example of how the Federal partnership works through the land-grant system with such positive impact on the economy, the consumer, and the farmer. This is but for one program; it is also true for each variety of every species grown in our food system. We would certainly like, as farmers, to see the Federal portion of the partnership moved toward the funding intent of the farm bill.

Again, thank you for letting us talk with you.

RESEARCH BUDGET

Senator COCHRAN. You may proceed.

Mr. JOYCE. In my written testimony I discussed the investment aspect of research. The cost again for this entire program for the 6-year period was approximately $375,000. This technology is now being used all over the Nation and soon will be used throughout the world. The total impact of this investment is incalculable. There is at least a multiplier effect of three as these dollars ripple through the economy.

I wish to emphasize that we are seeking methods for economic recovery. In science, there would be no research without education, and certainly vice versa. Without the means of extending this knowledge, there would be no return. This is but one example of how the Federal partnership works through the land-grant system with positive impact on the system.

It is also true for each criteria of species grown in our food system. As farmers, we would certainly like to see the Federal portion of the partnership move toward the funding intent of the farm bill. I would like to ask if you think that the Senate will work toward honoring section 1437 of title 14 regarding the funding level for State research, as it was described initially, by October of this year. Do you think that is possible?

Senator COCHRAN. I didn't hear your question. I was reviewing the witness list and wondering how we were ever going to get through.

Mr. JOYCE. I wonder if you thought the Senate would move by October of this year toward honoring section 1437 of the farm bill regarding the increased funding for research as was initially scheduled?

Senator COCHRAN. Will the Senate honor?

Mr. JOYCE. Do you think the Senate would work toward honoring the section?

Senator COCHRAN. I don't know what you mean by that. We wrote it; we ought to comply.

Mr. JOYCE. I think authorized increased funding should be growing over the years for that.

Senator COCHRAN. That is a separate process. Authorization and appropriations are two separate processes. The Senate Appropriations Committee, of course, would be restrained by the authorized limits. Authorization does not mandate an appropriation.

Mr. JOYCE. I realize that. The authorization, I believe, is quite a bit in excess of the appropriations, and I thought you might see fit to work toward that.

Senator COCHRAN. We would be glad to have your suggestions.

Mr. JOYCE. Thank you for letting me present this statement.

Mr. FARLEY. Senator, our Council for Agricultural Research, Extension, and Teaching in terms of agriculture adopts the broadest definition of agriculture to be inclusive of all of the program areas that we typically have within our land-grant colleges and universities and our schools of agriculture. In Mrs. Cole's comments, she will be mentioning a little bit of the things that will be more on the periphery but still included within our major concerns.

AGRICULTURAL PARTNERSHIPS

Mrs. COLE. I just would like to speak briefly about the several partnerships that make up the agriculture division.

You are well aware of the particular partnership that is being represented by this process—the Federal, State, and local partnership. These kinds of hearings happen all over the country in States and small towns. I live in Maine, where we still have town meetings. This is a reiteration of the partnership of research, extension, and teaching. This integrated relationship of people and ideas is responsible for training researchers and educators, developing new information and innovations, and extending that knowledge to the people of each State.

Again, Dr. Dunbar's committee gives evidence of the third partnership—the professionals and volunteers within the system.

The fourth component is one that encompasses the program areas within the division, and quite obviously, the division of agriculture pays attention to agriculture. In addition, we need to pay attention to its relationship with home economics, community and natural resource development, and 4-H youth development; otherwise, we do a disservice to the original intent of the land-grant concept.

EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM

As an example, consider nutrition education. The expanded food and nutrition education program begins with the assumption that we, as a nation, can produce an adequate supply of quality food. But with current economic cutbacks and limitations, families are hard pressed to make the most of their food budget, and communities are often unable to offer the kinds of assistance previously available. Education can provide the answers—educational assistance for those coping with reduced incomes and unemployment—for those wanting to be more self-reliant. EFNEP provides a scientific base of information for adjusting to changing family financial conditions, as well as changing nutritional needs, especially for youth and for childbearing mothers.

With this illustration, one can see all the elements of the fourth partnership meshing—agriculture, home economics, community development, and 4–H youth development. EFNEP is but one example of how the several partnerships work together to provide an integrated educational program. I would recite, for example, urban gardening, integrated pest management, all of which cut through those lines.

One becomes aware that no aspect of the system stands alone. In like manner, the entire system may be jeopardized if even one partner in the matrix is diminished or abandoned. Perhaps, it is just this delicate balance of partnerships that is the greatest strength of the agricultural division. We are here to ask your support in helping to maintain that delicate balance and that strength.

I appreciate the opportunity to speak to you today.

Senator COCHRAN. Thank you. Good to see you before the committee again this year.

Mrs. COLE. Thank you.

Mr. FARLEY. Thank you very much for the opportunity to be here.

Senator COCHRAN. Thank you for taking time to be here, and we appreciate having your guidance and suggestions for the committee. They will be very carefully considered as we work our way through this process.

NATIONAL AGRICULTURAL RESEARCH AND EXTENSION USERS ADVISORY BOARD

STATEMENT OF WILLIAM E. MARSHALL, CHAIRMAN

Senator COCHRAN. Our next witness is Mr. William Marshall, chairman of the National Agricultural Research and Extension Users Advisory Board.

Senator EAGLETON [presiding]. I am going to substitute for Senator Cochran for the remainder of the morning. I encourage you and the other witnesses to be as succinct as possible. We have quite a list of witnesses yet to be heard. Some of them have come from considerable distances. They have a right to be heard, and we do want to hear them. I don't address that singly to Mr. Marshall, but collectively to all who may succeed.

Mr. MARSHALL. Thank you, Mr. Chairman.

My name is Bill Marshall, technical director, Development Sector, with the General Foods Corp. I am testifying this morning as chairman of the National Agricultural Research and Extension Users Advisory Board. With me is Mrs. Barbara Fontana, who is executive secretary of our Board.

FISCAL YEAR 1984 BUDGET

As you are aware, our Board was established by the National Agricultural Research, Extension, and Teaching Policy Act of 1977 to provide information and independent advice to the President and Congress on issues of concern to users of agricultural research and extension services. Copies of the Board's analysis of the proposed fiscal year 1984 budget for food and agricultural sciences were distributed to members of the committee several weeks ago. This morning, I would like to briefly apprise you of some of our primary concerns.

We all wish there were more Federal dollars available to spend on agricultural research. More money, wisely spent, would certainly hasten technological breakthroughs in areas, such as genetic engineering and biotechnology which would significantly increase agricultural productivity throughout the world. However, our concern, under present fiscal conditions, is less with the overall level of funding proposed in the fiscal year 1984 budget than with the manner in which that money is applied.

Our recommendations are to strengthen State agricultural experiment stations, Economic Research Service, and Agricultural Research Service without significant budget increases.

During the past 30 years, as our national agribusiness has grown and become more technology-intensive, the burden of maintenance research has increasingly fallen on our State agricultural experiment stations (SAES). At the same time, Federal support for many fundamental sciences that represent the underpinnings of agricultural research has shifted to agencies outside USDA. Among the aspects of the administration's proposed budget, which is of the greatest concern to the UAB, is the diminished role of USDA in the direction and coordination of agricultural research. Last year, a study conducted by the Policy Analysis Staff of the Science and Education Administration, at the request of Congress, showed that 14 agencies outside USDA received $629.3 million for agricultural research in fiscal year 1981 while the SEA research budget totaled only $603.4 million. Table 1 summarizes the overall results.

[Table 1 follows:]

TABLE 1.—*Agricultural research funds for Federal agencies other than USDA and USDA science and education for fiscal year 1981*

Federal agencies other than USDA:	*Millions*
Department of Health and Human Services	$193.6
Agency for International Development	108.7
Department of the Interior	103.9
Department of Commerce	72.5
Department of Energy	36.5
National Aeronautics and Space Administration	25.0
National Science Foundation	24.5
Tennessee Valley Authority	19.5
Environmental Protection Agency	13.5
Army Corps of Engineers	13.3
Department of Defense	11.7
Department of Labor	2.6
Veterans Administration	2.6
International Trade Commission	1.4
Total, non-USDA funds	629.3

TABLE 1.—*Agricultural research funds for Federal agencies other than USDA and USDA science and education for fiscal year 1981*—Continued

USDA science and education:	*Millions*
Agricultural Research Service	$402.8
Cooperative State Research Service	200.6
Total, USDA funds	603.4

While we do not yet have information for more recent fiscal years, I am concerned that the trend continues. Unfortunately, the proposed fiscal year 1984 budget makes this difference even greater by providing very substantial program increases in strategic funding for the National Science Foundation, National Aeronautics and Space Administration, and the Department of Energy, with the objective of developing breakthrough technologies. Table 2 illustrates one example of such program increases in the area of plant physiology. We welcome the proposed increases in funding for such areas. We, however, must recognize the impact of this trend on programs within the USDA and the need to coordinate all Federal research programs.

[Table 2 follows:]

TABLE 2.—FEDERAL FUNDS FOR BASIC PLANT PHYSIOLOGY

[Dollars in millions]

	Fiscal year—			
	Actual 1982	Planned 1983	Proposed 1984	Percent of increase 1984 over 1983
USDA:				
Agricultural Research Service	$23.50	$26.30	$27.70	5.3
Competitive research grants	13.44	15.00	15.00	0
National Science Foundation	41.00	43.40	50.40	16.1
Department of Energy	6.30	7.20	8.30	15.3

Most of the non-USDA funds are granted to universities and institutions through peer review of project proposals. In 1981, the State agricultural experiment stations received only 15 percent of the funds awarded by other Federal agencies. Seven of the fifty-seven State agricultural experiment stations accounted for more than one-half of that 15 percent.

Eighty-five percent of these non-USDA funds support work outside the State agricultural experiment stations. Our SAES scientists do not have close, ongoing contact with the research and have to rely upon the research publications to learn of important developments from this research. As a result, experiment station scientists are in little better position to take advantage of the results of the research than scientists working in any other part of the world. These conditions may destroy the competitive advantage that experiment station scientists would otherwise have in translating the results of this basic research into technologies and commercial applications.

A second concern, resulting from awarding basic research grants from non-USDA agencies, has been the migration of scientists in basic fields from agricultural colleges. In the past, public and private research laboratories have relied heavily upon the land-grant system to attract and train high caliber graduate students in basic and applied sciences. To a large extent the land-grant system is caught in a vicious circle. The ability to train graduate students has been seriously eroded by the migration of top-flight scientists which, in turn, is encouraged by the fact that there is more research money supporting food and agriculture outside experiment stations.

[Table 3 follows:]

TABLE 3.—*State agricultural experiment station receipt of non-USDA Federal funds, 1981 according to rank*

	Thousands
California	$10,781
Colorado	10,777
New York	8,231
Wisconsin	7,114
Indiana	3,807
Florida	3,061
Oregon	3,033
Total	46,804
Total SAES	77,734
Total funds available (excluding AID)	520,300

RECOMMENDATIONS OF UAB

To close the gap between fundamental discovery and commercial application for agriculture and to restore the preeminent position of USDA in the direction and coordination of agricultural research, the UAB has made three recommendations:

First, direct USDA to promote the awarding of competitive grants for joint proposals that are submitted by applied scientists in the experiment stations and basic researchers in the pure sciences that are presently outside the State agriculture experiment stations.

Senator EAGLETON. What did you say about competitive grants?

Mr. MARSHALL. We would direct the USDA to promote the awarding of competitive grants for joint proposals that are submitted by applied scientists in the experiment stations and basic researchers in the pure science departments that are presently outside the State agricultural experiment stations.

Senator EAGLETON. You would require they be joint proposals?

Mr. MARSHALL. Yes, sir.

Senator EAGLETON. I know from the thrust of your testimony that you want to see more research done in the experiment stations. I just question off the top of my head whether your proposal on competitive grants is an efficacious way of doing it.

Mr. MARSHALL. Well, in the simplest way, our concern is that we see the Federal budget for agricultural research in two areas. Half of it is funneled through the USDA, and the other half goes through the other Federal agencies.

Senator EAGLETON. That surprised me. I had not seen agricultural research funds broken down that way.

Mr. MARSHALL. Our concern is two-fold. We don't have the proper coordination and management at the top, at the Federal level, and we don't have the proper knowledge transferred rapidly down at the working level. What we are suggesting with these joint proposals is a way of bringing the pure, basic research in the pure departments of science that are outside the experiment stations together with the applied work in the experiment stations by this joint proposal mechanism. That would tie the scientists together at the bottom.

We would recommend an increase in the competitive grants plant science research program by a total of $8.5 million, including $5 million transferred from the National Science Foundation. This would strengthen strategic agricultural research without weakening the science capability for American industries supported by urban Members of Congress since basic research for the broad agricultural product line provides high spillover benefits for technologies in other areas.

Second, rejuvenate agricultural science training by allocating $2.5 million for the new ARS post-doctoral basic science programs. We recommend that $2 million be transferred from the NSF to supplement the $.5 million proposed by the administration.

Third, increase formula funds for SAES to provide for pay increases comparable to the increases proposed for USDA research agencies. A 3.2-percent increase in formula funds, amounting to $5.5 million, would provide dollars comparable to USDA researchers for all experiment stations including Tuskegee. A significant proportion of these funds support graduate student training while conducting maintenance research necessary to support today's technology-intensive agriculture.

ECONOMIC RESEARCH

A second broad area of concern to the UAB is economic research. Here, we see two issues. The first is a need for more timely analysis of international market opportunities. The redirection of ERS resources to the International Economics Division during the past 2 years is to be applauded. Nevertheless, in view of the increasing importance of international trade and foreign trade markets for U.S. agriculture, we believe the proposed funding for IED is still inadequate to insure effective and timely analysis of our increasingly complex international markets. To address this problem, we recommend that personnel experienced in international economics should be contracted from land-grant universities or the private sector with redirected program funds from the Economic Development Division.

The second issue is the need for more accurate production predictions for the end of the century and beyond, taking into account potential biological improvements in livestock and crops plus advances in fertilizers and chemicals. Establishing greater coordination between economic analysis and biological research is our recommendation. In our judgment, economists must work more closely with biological scientists to identify the potential value of research to agriculture and to produce more meaningful macroeconomic analyses. Such collaboration between ERS economists and ARS biological scientists can be accomplished through interagency personnel transfers and should not require additional funds.

GENETIC ENGINEERING

Last, we are concerned that USDA research funds are being spread too thinly to achieve optimum scientific results. We certainly concur in the judgment that USDA funding for genetic engineering has been inadequate. In fiscal year 1982, ARS spent $4.67 million on 27 genetic engineering projects, supporting 34 scientist man-years. Funded in this way, none of the projects has a chance to acquire the critical mass of qualified scientists needed to achieve meaningful results in an area so complex. The proposed use of increased funds in fiscal year 1984 follows a similar pattern. We believe ARS should reexamine its funding priorities for fiscal year 1984 and allocate the available funds among a more limited number of projects concentrated at research centers where the necessary critical mass can be achieved.

We ask that policymakers carefully review our recommendations and discuss their merits with as many users and performers of agricultural research and education as possible. We have come to realize the UAB's value as a medium in which these and often opposing views can find common ground and negotiate differences. In this way, we are more than a mere conduit for the opinions of others, opinions which would eventually and separately reach you.

Thank you for this opportunity to apprise you of key recommendations in the February 1983 UAB report.

Senator EAGLETON. Thank you very much, Mr. Marshall, for a very thoughtful and well researched document. I think you make some very interesting proposals, and it will be very helpful to the committee. We appreciate it.

STATEMENT OF HON. SID MORRISON, U.S. REPRESENTATIVE FROM WASHINGTON

Senator EAGLETON. We were going to hear from the wheat growers next, but Congressman Morrison is here. If the wheat growers don't mind, we will have the Congressman present his testimony next. I know he will be brief, since I am doing him a great favor.

Congressman, we are giving you the chance of a lifetime to work your way into the schedule on the assumption you will be reasonably brief.

Representative MORRISON. Thank you, Mr. Chairman. We don't need apologies; we need money, and I guess that is the thread that runs through all the testimonies of those who are here.

I appreciate this opportunity. Mr. Chairman, if I might, I would just like to paraphrase the comments that are in my written testimony, which, I hope, will be made a part of the record.

Senator EAGLETON. It will be.

[The statement follows, prefaced with a letter of support from Senator Henry M. Jackson, Washington:]

Letter From Hon. Henry M. Jackson, U.S. Senator From Washington

Honorable Thad Cochran
Chairman
Subcommittee on Agriculture
Senate Committee on Appropriations
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing to express my support for the attached testimony delivered by Congressman Sid Morrison of Washington State on April 19 before your Subcommittee.

Washington State, as you know, is heavily dependent upon the production and marketing of commercial tree fruit crops. Apple production, in fact, has doubled in the last ten years. And, with this increase in production, the need for research in the areas of handling and storage of crops becomes critical. Otherwise, our export market will suffer.

I believe that the Agricultural Research Service facilities at Wenatchee and Yakima would provide a substantial contribution to this essential research need in our State, and therefore request that $300,000 be provided for each of these facilities when your Subcommittee marks-up the FY 1984 Agriculture Appropriations bill.

Best personal regards,

Sincerely yours,

Henry M Jackson

Henry M. Jackson, U.S.S.

Statement of Representative Sid Morrison

Mr. Chairman and distinguished members of this committee, I thank you for the opportunity to testify before you on behalf of an issue that is important to me as a farmer, as a Member of Congress and as a consumer.

During the 1970's the production and marketing of apples, pears and cherries doubled. Twenty-three thousand families are now directly dependent upon the production, packaging, storing and marketing of commercial tree fruit crops in Washington, Oregon and Idaho.

Existing new plantings will likely result in an additional 50 percent increase in production in the 1980's. From 1950 through 1973 in Washington, Oregon and Idaho apple production ranged from 25 to 35 million boxes annually. From 1979 through 1982 area crops have increased to 50 to 70 million boxes. With these volumes, there is a definite need for harvest, handling, storage and marketing adjustments. Marketing must be expanded to world-wide and year round.

New handling and storage methods expanded rapidly from pressure of production, yet post-harvest research for which USDA - ARS has historically had major responsibility, declined 50 percent in real funding support over the last 12 years. Fruit quality, handling and shipping methods for new export markets has no current funding support except from the growers.

Wenatchee, Washington USDA research facilities are new and adequate, but lack scientists, aids and funding support for current research staff. The one individual working on post harvest physiology is eligible for retirement in two years. Prior to 1970 there were three post harvest physiologists at this location. There needs to be a continuation and expansion of this storage and handling research work and at least one post harvest physiologist added to the current staff.

With the increase in production, the critical areas for fruit producers will be maintaining fruit size and quality that meet market demands. Research in the areas of production, particularly those dealing with growth regulators and aids that maintain high quality and high yields, is critical.

The research facilities at Yakima are inadequate for performance of needed research by current staff. Some sections of the Yakima facilities are being considered for closure with the associated funds transferred to other areas and not used to bolster continuing research at this location. Those funds are particularly needed for research on required fruit treatment for export and pear psylla work.

A continued major effort in pear psylla control is necessary. Chemical sprays now cost pear growers $300 or more per acre, and control is less than desirable.

Apple and pear fumigation development is vital to assist in maintaining export markets and breaking down non-tariff trade barriers. Apple maggot and other insect control is essential to maintaining both domestic and export markets. Apple maggot, newly found in Oregon and Washington, is a major concern. The lack of early and effective control and even possible elimination of this insect can result in loss of both U.S. and export markets.

Because of the reductions in Federal and State funding for research, growers commissions, such as the Washington Fruit Commission, the Washington Tree Fruit Research Commission, and the Washington, Oregon, California Winter Pear Committee have contributed over $4 million to research since 1970.

Fruit growers initiated these substantial contributions to research because they felt the need to supplement on-going research efforts. In the past few years declining Federal support of these two USDA - ARS labs has resulted in a net overall reduction in research efforts even with the grower contributions.

I offered an amendment to the Agriculture Committee's budget recommendations which increased the Agricultural Research Service's funding for the Wenatchee and Yakima labs by $600,000. The House Budget Committee included this recommendation in its first budget resolution. It is not a significant increase, yet the results of this research would have significant impact on the economy of the states surrounding Oregon and Washington and the nation as a whole with direct benefits to producers, distributors and consumers alike.

I sincerely appreciate the time you have given me and I hope this request will be positively considered. I will be pleased to answer any questions at this time.

POST-HARVEST PHYSIOLOGY

Representative MORRISON. My area produces a number of commodities in the State of Washington. I am an apple grower myself, and during the 1970's I watched the doubling of production of some of these specialized crops—apples, pears, and cherries. At the same time, this doubling has helped us to move into the position of an improved balance of trade. We have expanded our exports and our technologies so we are working on a year-round worldwide basis. Yet, we see the production ahead of us doubling again in the next few years. I think this is a positive sign that much work needs to be done.

During the same timeframe when we have had this doubling of production in the 1970's, we have seen the Agricultural Research Service's net funding for what we call post-harvest physiology actually going down by 50 percent. So, we are moving in the wrong direction in post-harvest physiology, in that it is the key to getting the product to market, particularly when you have to have a quality product that will withstand the battering and travel around the world and long temperature storage. Much of this is new work, and we need to continue this effort.

So, we have had significant increase in production and yet a loss of 50 percent in effective funding from Federal sources on this one area of research.

At the same time, Mr. Chairman and members, as a State legislator, I went to the industry and said we need to put our money where our requests have been in formation of a tax structure within the State of Washington. We now have contributions from a variety of efforts—about $4 million from State producers in this same 10-year timeframe. I am using that as a point of reference. So there is local support for these programs, and many of them are dependent on contributions by growers and backing away from Federal support.

I am asking, in my statement, for two research stations operated by the Department of Agriculture in my State, one at Yakima and one at Wenatchee. In one case it is a newer facility. They have room; they have no equipment. The other case is a smaller, older facility, and they need manpower. We have asked for, and the House has approved in its budget, a total of $600,000 for these two facilities. This will be for a sort of catchup effort in this much needed investigation on how we can get these products around the world year round so we can improve marketing opportunities.

I thank you for this opportunity.

Senator EAGLETON. The new facility is at Yakima?

Representative MORRISON. The new one is at Wenatchee.

Senator EAGLETON. The new one is built, but it is not being utilized?

Representative MORRISON. It is partially utilized, but we have had some retirements, the decision was made not to replace those people, because of budget pressures. So, we end up in an embarrassing position. If we raise this $4 million at the State level, we will be able to augment what is coming through the national chain of events from the Federal level. Now, some of these efforts are being strictly funded by grower support. As I said, we have lost 50 percent in those funds for this use.

Senator EAGLETON. Thank you, Congressman, very much. I appreciate your being with us.

Representative Morrison. Thank you.

NATIONAL ASSOCIATION OF WHEAT GROWERS

STATEMENT OF DON LOESLIE, PRESIDENT

ACCOMPANIED BY MARGIE WILLIAMS, DIRECTOR, GOVERNMENTAL AFFAIRS

Senator EAGLETON. We will now move to the National Association of Wheat Growers, Mr. Don Loeslie. Am I pronouncing your name right?

Mr. LOESLIE. That is right.

Mr. Chairman, members of the committee, my name is Don Loeslie. I am a wheat farmer from Warren, Minn., and president of the National Association of Wheat Growers. With me is Margie Williams from our national staff here in Washington.

I am pleased to have the opportunity to express the views of the NAWG in regard to funding of programs under the jurisdiction of the U.S. Department of Agriculture. My comments are wide ranging, but will certainly not address all of the programs which benefit the wheat industry and which we consider to be essential. Rather, I will comment on those which have been particularly underfunded in the administration's budget request for fiscal year 1984, or which we believe need special attention from the committee.

PUBLIC LAW 480 PROGRAM

Export credits, and particularly Public Law 480. Many wheat-importing countries do not have access to USDA's credit guarantee, blended credit, and other programs because of backward economic conditions. These countries can only be serviced through the concessional sales or donation programs of Public Law 480. Under the proposed outlays for the program in the President's budget request, commodity shipments would slip from 5.7 million metric tons in 1983 to about 5.4 million metric tons in 1984. We urge the committee to fund this important program so that shipments can be increased, and in order to meet our food aid commitments abroad, and to build lasting ties with emerging nations in need of continuous food supplies. We recommend that the 1984 funding for titles I and III be set at $800 million instead of USDA's request for $402 million.

We also recommend an increase for title II spending to $750 million, or $100 million over USDA's proposal, and remind the committee that cargo preference requirements are an increasingly expensive element of Public Law 480 shipments, as U.S.-flag vessel shipment costs rise in proportion to foreign-flag vessels. This is a burden which the agricultural sector has borne for some time, and is particularly troublesome presently, as export outlets are so desperately needed to absorb some of the Nation's grain surplus.

EXPORT CREDIT PROGRAM

In its 1984 budget proposal, USDA would reduce the export credit guarantee program level from $4.8 billion to $3 billion. Last fall, USDA announced its blended credit initiative, and several export transactions have taken place within this program.

The Congress, in its 1983 appropriations measure for USDA, authorized, and encouraged the use of, $500 million of direct credits, to be used in conjunction with credit guarantees to result in a lowered overall interest rate for buyers of American commodities. USDA has announced that it will use $250 million of this amount in combination with the credit guarantee program to leverage additional sales during the current marketing year. Although several sales agreements have been announced as a result of this additional funding, movement of these commodities has been delayed or prevented because of lengthy interagency clearance procedures. In our view, priority consideration should be given to expanding markets for U.S. farm commodities, through positive and aggressive programs, rather than to the concerns of the European Community or those others who wish to continue to build their export market share at the expense of the American farmer.

We would like to request that the subcommittee make additional direct credits available to the Department in 1984 and that mandatory use of all appropriated funds be included in the appropriation. We would also ask that the subcommittee maintain the 1983 program level for credit guarantees, rather than reduce it by more than one-third, as requested by USDA.

PLANT PRODUCTIVITY RESEARCH

Although funds for plant production research are increased in the 1984 budget submission of the USDA, the allocation of these funds is being directed away from productivity research. The ARS program plan for 1984–90 indicates a 7-percent decline in productivity research funding from 1982 to 1990 and cites the current surplus as the reason for the cutback. This is a short-sighted view, in our opinion, since supply management initiatives are underway to bring the over-supply of grains and other commodities under control. Research to control plant disease and other productivity inhibitors is a constant need, in spite of upward swings in the supplies of commodities. Varieties which are resistant to a given pest become vulnerable to others in a very short period of time, and new varieties must constantly be introduced into the genetic pool in order to insure an even supply of food. In addition, productivity gains must be made through genetic research to reduce farmers' production costs and thereby improve farm income.

PROGRAM STAFF

The national program staff which oversees crop research has been reorganized, with the demotion of the leading research scientists in small grains. One person was made responsible for several other crops in addition to small grains. This person subsequently resigned, noting that it was not possible for one person to do a satisfactory job supervising research in so many areas. Presently, there apparently is no one coordinator of the wheat research programs in ARS that we are aware of.

WHEAT QUALITY LABS

Of special concern as the crop production cutbacks come into effect will be the fate of the four regional wheat quality labs around the country. Should these labs ultimately be closed or severely reduced in size, it will be virtually impossible to reassemble a scientific base for crop quality improvement or preservation when the problems begin to arise from new diseases, change in tillage practices, or changes in marketing requirements. There is, as yet, no indication that ARS plans to phase out these labs, but they would be a logical target when such a large decrease in funding is planned.

These laboratories are an integral part of the overall national wheat improvement program. They serve as a watchdog over the quality of U.S. wheat, in that all advanced breeding lines from State experiment stations and ARS wheat breeding programs, and some private industry breedings lines, are tested for milling and baking quality prior to release. In this way, wheat varieties of tomorrow are chosen on the basis of their quality performance. These four laboratories are directly responsible for maintaining or improving the quality of U.S. wheat varieties, which is an essential goal in meeting the demands of our foreign, as well as domestic, buyers.

PULLMAN LABORATORY

It is our understanding that a research position, as well as $100,000 in funding, have been redirected from the Pullman, Wash., Laboratory to the Western Regional Research Center at Albany, Calif. The NAWG strongly opposes this initiative to weaken the Pullman Laboratory. We urgently request that the research position be reinstated, so that a new cereal chemist can be recruited and the budget of the Pullman Laboratory be increased at least to previous levels. Ironically, just during the past year, the Laboratory staff at Pullman committed itself to test a greatly increased number of breeding lines from the University of California wheat breeding program to prevent current problems with Anza wheat from occurring in the future.

GERMPLASM

NAWG has supported the need for increased funding for the ARS germplasm program over the past 4 years. Limited new money has been appropriated for evaluation and development of germplasm. A new facility is urgently needed to permanently house the national small grains collection, which includes the national wheat collection. Adequate funding for maintenance, evaluation and improvement of ARS wheat research efforts in germplasm and genetic material is urged.

PESTICIDE IMPACT ASSESSMENT

In the Extension Service, the USDA proposed to dismantle its pesticide impact assessment operations and to discontinue its applicator training programs within the States. These would be unfortunate developments for agricultural producers who depend on the continued availability of effective agrichemicals. USDA's pesticide impact assessment team is responsible for gathering use and benefits information in regard to pesticides which come under the review of the EPA. These chemicals are subject to cancellation if adequate arguments are not made available within RPAR reviews that the chemical's benefits outweigh its risks. The benefits argument has traditionally been weak because of inadequate research resources within USDA. If USDA's impact assessment program is eliminated, then the benefits argument will be left entirely to the EPA to make. This situation would be extremely unfair to the Nation's agricultural producers who depend upon USDA to insure that a balanced benefits analysis is included in EPA's pesticide reviews.

The applicator training program has improved the knowledge of producers who must handle powerful agrichemicals and has resulted in more accurate and safer chemical applications on cropland. Farmers themselves, as well as the general public, have benefited greatly from reduced exposure to these chemicals. The NAWG firmly believes that safe use of agrichemicals can best be insured through education, rather than through increased regulation. If farmers can better understand the hazards of the chemicals they use, as well as proper application techniques, then the need for restricting use of chemicals, or cancellation, is reduced. USDA's Extension Service is the most appropriate agency to administer the training program, and we urge the subcommittee to direct USDA to continue this service and to fund both the pesticide impact assessment and pesticide management programs at least at 1983 levels.

CONSERVATION PRACTICES

The STEEP project in the Pacific Northwest is a cooperative effort among the ARS, Extension Service, SCS, and the university systems and has yielded impressive improvements in soil conservation practices in an erosion-prone area. The STEEP project meets the conservation policy objectives of the administration in targeting Federal assistance to areas where there is a high concentration of critical problems affecting solid productivity and in assigning the highest priority to reducing soil erosion. USDA proposes an overall reduction in SCS and Extension spending next year, and the NAWG is fearful that this could mean a cutback in the transfer of technological skills to farmers who could benefit from the research carried out under the STEEP program. The NAWG strongly recommends that this program continue to receive full support from USDA's various involved agencies, so that the resources already applied toward the program can be maximized.

The NAWG also recommends that the Great Plains conservation program be continued at 1983 levels and that the already authorized special areas conservation grants and soil and water conservation grants be funded. Mr. Chairman, low farm earnings are preventing farmers from launching new conservation projects. Farmers today need greater Government assistance in protecting the Nation's precious soil resources.

FEDERAL CROP INSURANCE

The NAWG notes with concern that administrative and operating costs of the Federal Crop Insurance program are growing rapidly. The 1984 request for funding is $42.8 million greater than last year's needs, in spite of the fact that farmer acceptance of the program is still quite low, with no more than 25 percent of wheat acreage enrolled. Mr. Chairman, it seems to us that FCIC should have a better track record by now in order to justify spiraling administrative and operating costs. NAWG members have recently met with FCIC administrators to suggest improvements in the program, so that more farmers will be interested in participating. Participation rates must be high in order to make the cost of coverage relative to the benefits a reasonable one. It seems to us that the first priority of FCIC should be to design the program with this as the most important goal.

Mr. Chairman, we thank you for the opportunity to be here and meet with you today. This concludes our testimony.

Senator EAGLETON. Thank you, Mr. Loeslie.

Senator Burdick has a question.

Senator BURDICK. Thank you, Mr. Chairman.

I appreciate your testimony. I am trying to get something straight here in my mind. On page 2 of your statement, you say, "We request the subcommittee maintain the 1983 program level for credit guarantees, rather than reduce it by more than one-third, as requested by USDA." Would you relate that to figures? What was the 1983 program in dollars?

Ms. WILLIAMS. We will have to submit that later. I don't have those figures with me now.

Senator BURDICK. That would be fine.

Now, the 1983 appropriations on direct credit, as distinguished from guarantees, was $500 million, and, according to your statement, that has been reduced to $250 million.

Ms. WILLIAMS. The authorization is there, although the Congress did not mandate use of the full $500 million. We understand that about $250 million has been authorized for use by the Department, and we were told that the rest of those funds will be used in fiscal year 1983 and that the Congress would mandate at least a similar amount in 1984, with no mandatory use of the funds.

Senator BURDICK. What you are asking is that the subcommittee approve the 1983 program level for these. Does that include both the guarantees and direct credit?

Ms. WILLIAMS. That is the direct credits only.

Senator BURDICK. What I am trying to get at, on both these programs, is that you prefer, in fact you want, the 1983 level.

Ms. WILLIAMS. We would like to see the Department use direct credits in addition to the export credit guarantee credit program. We are very pleased with the results of the blended credit, but we also believe there are countries which need direct credits as well as access to the blended credit and credit guarantee programs.

Senator BURDICK. That is all, Mr. Chairman.

Senator EAGLETON. Thank you very much, Mr. Loeslie, and, thank you, Ms. Williams.

NATIONAL DAIRY HERD IMPROVEMENT ASSOCIATION, INC.

STATEMENT OF W. CHARLES McGINNIS, PRESIDENT

Senator EAGLETON. We will now move on to the National Dairy Herd Improvement Association, Mr. Charles McGinnis, president. Your full statement will be made a part of the record.

[The statement follows:]

STATEMENT OF W. CHARLES McGINNIS

I am Charles McGinnis, President of National Dairy Herd Improvement Association, Inc., which represents 67,000 dairy farmers enrolled in the National Cooperative Dairy Herd Improvement Program.

Dairy farmers applaud the motives of the administration and Congress to bring government expenditures in line with government income. Nevertheless, National Dairy Herd Improvement Association believes research is more important than ever! Dairy farmers believe Congress has a responsibility to encourage production and marketing efficiency by encouraging needed research and education facilities.

The need for product research and marketing efficiency research is dramatized by dairy surpluses. Increased per capita consumption of dairy products is a solution acceptable to farmers and consumers. A recent survey emphasizes dairy farmers' concerns for marketing and products development, research affecting quality production (mastitis), and longstanding needs for additional research and education in solving reproductive problems. Dairy farmers suggest the following research areas deserve highest research priority:

(a) Product and distribution research
(b) Mastitis research
(c) Integrated Reproduction Management

Dairy farmers ask your consideration of these requests in the U.S. Department of Agriculture Budget for Fiscal 1984.

I am Charles McGinnis, Kinards, South Carolina. I farm about 2000 acres at White Plains Ranch in South Carolina. I have a registered Jersey herd of 900 animals, including 500 in the milking herd. Dairy herd improvement, artificial insemination, milk marketing, and dairy breed organizations all contribute to the success of my dairy farm operation. The U.S. Department of Agriculture cooperates with these organizations by providing research and educational programs which are extremely important to our farm operation.

I am President of National Dairy Herd Improvement Association, Inc., (National DHIA), which represents 67,000 dairy farmers enrolled in the National Cooperative Dairy Herd Improvement Program (NCDHIP). The NCDHIP provides computerized dairy farm management data; the program is the basis for national genetic evaluations; it provides information for sound artificial insemination and breed improvement programs. It is the basis for many research and education programs.

Dairy farmers in National Dairy Herd Improvement Association encourage the Congress and the administration to continue to attempt to balance government expenditures with government income. We do not believe, however, the emphasis on research should be diminished. In fact, we believe agricultural research is essential. The Joint Council on Food and Agricultural Sciences has stated, "A broad base of available, continuing research and education expertise must be maintained. It must be protected from inflation and capable of responding to unforeseeable changes in the biological, economic, and social environments in which agricultural production and marketing take place."

In a recent study, the Congressional Office of Technological Assessment stated USDA expenditures for research are proportionately the smallest of any major Federal research agency, and have remained level in constant dollars since 1967. In their 1977 report, the Office of Technological Assessment stated, "it is highly probable that a research investment of $300 million to $500 million over a 10 year period would yield returns of $1 billion to $2 billion over the next 20 years."

A study at the University of Minnesota showed that each additional dollar allocated to poultry, dairy, or livestock research adds $20, $26, and $42 to the total output respectively. "Viewed as an investment by society" says Dr. Edward Schuh, "these represent very high rates of return:

Poultry	37% annually
Dairy	43% annually
Livestock	46% annually

In comparison, this relates to a 9-12% return for regular commercial industrial investments."

A year ago, National DHIA pointed out the need for product research to improve per capita consumption of dairy products and, hence, reduce the need for government to deal with surpluses. Now the need is even more pressing. In the long run, government expenditures for research to expand markets is much more rational than purchases of surplus products.

National DHIA is a member of the Forum for Animal Agriculture, an alliance of 22 livestock organizations representing dairy, beef, swine, sheep, horses, poultry, dairy goats, and small meat animals. The Forum for Animal Agriculture believes animal research is essential for long-term well-being of American consumers. National DHIA asks consideration for dairy research priorities listed below in the U. S. Department of Agriculture Budget for Fiscal 1984 which are consistent with priorities for livestock research supported by the Forum.

1. Processing and distribution of dairy products
2. Mastitis research
3. Integrated reproduction management

Although these priorities have been stated previously, their validity has been re-confirmed during the past year. A survey sponsored by National DHIA was conducted in 1982 to determine problem areas, as seen by DHIA dairy farmers.

The survey was administered and tabulated by the staff of DAIRY Magazine in October 1982. Total sample was 3000. Every nth name from the circulation of DAIRY Magazine was selected; all DHIA dairymen in U.S. are included; total circulation is over 75,000. Seven hundred fourteen (714) of the 757 questionnaires returned were usable. Ninety-five percent (95%) of those responding are dairy farmers. A total of 694 questionnaires were identified by state. Chi-square (X^2) analysis indicates the sample is representative of dairy farmer opinion in U.S.

"Mastitis" is considered a significant (MINOR/MAJOR) problem by 85% of respondents, but more farmers believe "Milk Marketing and Promotion" (29%) and "Dairy Product Development" (25%) are SERIOUS problems (more than other categories).

RESEARCH PRIORITIES
BY DAIRY SUBSCRIBER RESPONDENTS

RESEARCH	MINOR/MAJOR PROBLEM (% Respondents)	SERIOUS PROBLEM (% Respondents)
Milk Marketing and Promotion	55%	29%
Dairy Product Development	57	25
Mastitis	85	20
Reproductive Problems	70	12
Heat Detection	74	
Retained Placenta	75	
Cystic Ovaries	70	
Abortion-Embryonic	51	

Other diseases named were rated as lesser problems. "Loans and/or cash flow" was considered to be a minor-major problem by 56% of respondents, but may not be of research concern.

Dairy farmers believe long range solutions to dairy surpluses should focus on increased per capita consumption which results from improved quality and consumer acceptability. National DHIA delegates enacted a resolution in both 1982 and 1983 to support "protein or component pricing --- as a marketing system which emphasizes quality and product saleability". When the marketing system is changed, even greater research is needed to ensure milk quality uniformity so consumers are assured consistent and high quality products. Although government sometimes indicates it believes product research is the responsibility of industry, nevertheless, sound research programs publicly funded could provide long-term solutions to surpluses, solutions which would be welcomed by both dairy farmers and consumers.

Major improvements in efficiency of processing milk are needed. Two major changes in milk handling could drastically increase efficiency:

Concentration of Milk at the Farm Level

> Research is needed to concentrate milk prior to shipment from the farm to reduce transportation energy usage.

Ultrapasteurization and Aseptic Packaging of Milk and Dairy Products

> Research is needed to speed the development of ultra-high temperature sterilization of milk to improve shelf life of milk and milk products, to establish optimum equipment and methods for ultra-high temperature processing, and to develop methods for predicting consumer acceptance of UHT dairy products.

Research is badly needed to reduce transportation costs by "concentrating" milk before shipment; also essential are packaging techniques to increase milk's shelf life" to six months.

Other dairy product research projects are:

Milk quality uniformity
Whey utilization for food and non-food
Ultra filtration of milk for yield improvement in cheese manufacture
Milk fat utilization
New and improved methods of analysis of milk components for quality or deterioration
Genetic engineering as a tool to improve dairy products
Nutritional aspects of dairy foods.

The real need is for government to establish funds to change the direction of marketing of dairy products in United States. A new atmosphere should be created in which quality, uniformity, and efficiency are stressed. We hope funds can be made available to initiate an effective research effort on dairy products.

PRODUCTION RESEARCH

Production efficiency of the dairy industry far surpasses its marketing efficiency, but efforts to improve efficiency at the farm level dare not relax! The long "lead-time" from research initiation to farm adoption of new techniques means the American economy must continue to develop new and better technology. Consumers are the ultimate beneficiaries. Dairy farmers believe Congress has a responsibility to encourage maximum productive efficiency for the health of the dairy industry and the American economy.

MASTITIS RESEARCH

Dairy farmers consistently regard mastitis as the prime disease problem of dairy cattle (cost is $1 billion annually); funding for research has improved slightly, but dairy farmers believe only a small part of needed research has been completed. As herd size increases and mechanization - automation takes place, research and information are more essential than ever. As an example, DHIA dairy farmers pay for monthly mastitis detection on 2.2 million cows. Follow-up research and communication are essential to supplement the detection system.

The following mastitis research needs were developed by the National Mastitis Council:

1. Milking Equipment and Mastitis

   There are few reliable data defining characteristics of milking machines that influence incidence and severity of mastitis.

2. The Dry Period and Mastitis

   New methods of treatment and prophylaxis in the dry period are needed.

3. Specific Immunity and Immunization

   There is need for study of the mechanisms of immunity and potential effective vaccines.

4. Non-Specific Resistance

Resistance research areas include integrity of the teat canal barrier to infection, phagocitosis in the mammary gland, and various antibacterial factors in milk and dry period secretions.

5. Integrated Mastitis Control Program

Development of integrated mastitis control systems requires validation of management practices which minimize the incidence of clinical mastitis, the level of subclinical infection, and production loss.

INTEGRATED REPRODUCTION MANAGEMENT

Integrated Reproduction Management is a national project painstakingly developed over several years. Congress, the U.S. Department of Agriculture, and the agricultural colleges all encourage the concept as a better way to provide research and information to livestock producers. Objective of the integrated concept is to tie together all of the facets of research, extension, and information dissemination so that farmers have available a package which solves problems at the farm level. Producers applaud the concept, but are weary of hearing agencies (both federal and state) explain why they cannot do much. There is little effort to cooperate with each other, in the opinion of producers. In other words, there has been little action.

Based on these concerns, the Forum for Animal Agriculture recently developed the following statement:

"Based on the need to develop and integrate research, knowledge, information and educational programs from many and varied disciplines to solve problems of significant economic impact upon industry, there is a need to provide producers with a package of management recommendations to solve specific problems in a systematic fashion so as to improve overall efficiency.

Therefore, the Forum on Animal Agriculture, meeting in Arlington, Virginia on March 4, 1983, recognizes the need to pursue Congressional support for the concept of Integrated Reproductive Management (IRM).

The Forum further supports the need for Congress to stipulate that administration and 'tracking' of Federal IRM monies be conducted by Agricultural Research Service (ARS), Cooperative State Research Service (CSRS), and Extension Service (ES). Each IRM project shall likewise be administered through appropriate representation of involved state experiment stations and extension personnel."

Earlier this year, National DHIA and several other organizations representing the Forum for Animal Agriculture requested Congress to authorize $1.5 million each for CSRS and ES to match specific funds already allocated to IRM by ARS.

We urge consideration of these comments, believing IRM has had sufficient discussion and now needs action.

COMPETITIVE GRANTS

We are pleased competitive grants for animal research is authorized in the 1984 budget for CSRS. We urge funding, so needed basic research can be undertaken:

(1) To assure a fundamental knowledge base for efficient and adequate production of animal products to meet U.S. and expanding world population requirements;

(2) To assure that animal food products continue to be available as a vital contribution to the health of all consumers;

(3) To continue to provide the means of harvesting forages from 60% of our land which is not suited for cultivated crops.

The Competitive Grant Research Program within CSRS offers this opportunity.

GENETIC EVALUATIONS

National DHIA appreciates the support of Congress and the U.S. Department of Agriculture in maintaining dairy research at the Animal Improvement Program Laboratory. The resulting dairy cattle sire and cow evaluations are essential to continued genetic improvement. Dairy farmers encourage the continuation of this important research.

We believe the needs described herein are worthy of your consideration. Dairy farmers believe support for research is essential for continuing productivity and marketing, as well as the benefit of consumers. Ultimately, consumers pay the cost --- for efficiency, or for the lack of it! Dairy farmers want to be efficient. We ask respectfully your consideration of these requests.

SERVICES PROVIDED BY THE ASSOCIATION

Mr. McGINNIS. Mr. Chairman, I am Charles McGinnis, a dairy farmer from South Carolina. We are currently running a milking herd of 500 registered Jerseys in our own operation. The dairy herd improvement testing program, artificial insemination, milk marketing and promotion, and services of the dairy breed organizations all contribute to the success of our operation. USDA cooperates with these various organizations by providing research and educational programs which are extremely important to our farm operation.

I am president of the National Dairy Herd Improvement Association. It is a national organization of 67,000 dairy farmers enrolled in the national cooperative dairy herd improvement program. This program provides day-to-day farm management data. The program is the basis for most national genetic evaluations of dairy cattle. It provides information on artificial insemination and general breed improvement programs. In fact, it is the basis for many of the research and educational programs in the dairy industry.

PRODUCT AND DISTRIBUTION RESEARCH

The dairy farmers in our organization encourage the Congress and the administration to continue its attempt to balance Government expenditures with Government income. However, in that light, we do not believe that there should be a deemphasis on research. The Joint Council on Food and Agricultural Sciences has stated in a recent statement:

> A broad base of available, continuing research and educational expertise must be maintained. It must be protected from inflation and capable of responding to unforeseeable changes in the biological, economic and social environments in which agricultural production and marketing take place.

A year ago before this same committee, National DHIA pointed out the need for product research in the attempt to improve per capita consumption of dairy products, and hence minimize the need for Government to deal with production. Now, the need is more pressing than ever before. In the long run, Government expenditures for research to expand markets is much more rational than its role in purchasing surplus dairy products.

National DHIA is a member of the Forum for Animal Agriculture, where 22 livestock organizations representing dairy, beef, swine, sheep, horses, poultry, dairy goats, and small meat animals get together to try to speak with a coordinated voice in establishing its priorities.

In this light, we renew our request, the same as our testimony last year, to give a special emphasis toward research funding for processing and distribution of dairy products, for mastitis research, and, as some of the other witnesses have said this morning, support of integrated reproduction management.

Dairy farmers believe long-range solutions to dairy surpluses should focus on increased per capita consumption. The delegates of our own organization have twice now gone on record promoting protein or component pricing, which would essentially change the pricing structure for dairy products in this country and result in a more palatable product that would be more pleasing and would help reduce the burden our industry faces. Although Government takes the position that product research should be the total responsibility of the industry involved, nevertheless, in spite of our own abilities to pursue these priority items, we do need assistance and Government funding in order to solve the surplus situation that now exists.

Mr. Chairman, your committee has been helpful to us in past years. We appreciate that. We are here to renew our concern and ask you to continue your assistance in helping us meet these priority needs.

Thank you so much for the opportunity to appear before you.

Senator EAGLETON. Thank you, Mr. McGinnis. We appreciate it very much.

NATIONAL CATTLEMEN'S ASSOCIATION

STATEMENT OF JOHN WEBER, PRESIDENT-ELECT

ACCOMPANIED BY J. BURTON ELLER, JR., WASHINGTON OFFICE

Senator EAGLETON. The National Cattlemen's Association, Mr. John Weber is the president-elect.

Mr. WEBER. Thank you, Mr. Chairman. I have with me Mr. Burton Eller from our Washington office. We appreciate the opportunity to be here this morning to present the views of the National Cattlemen's Association on the President's proposed budget for the Department of Agriculture in fiscal year 1984. We have submitted our written statement, so my comments will be brief on a few particular concerns we have.

[The statement follows:]

STATEMENT OF JOHN WEBER

SCIENCE AND EDUCATION

The National Cattlemen's Association supports the current effort to reduce the federal deficit and to maintain fiscal responsibility. At the same time, we want to emphasize the continuing need to fund agricultural research to insure adequate future supplies of food and fiber to meet domestic and export needs.

Today, the more progressive farmers and ranchers are utilizing all of the available technology to achieve optimum production efficiency in order to stay in business. In spite of the current surpluses of some commodities, funding for agricultural research must not be reduced from current levels. Such funding is a long-term investment in the future prosperity of the U.S. If we wait until we face shortages before initiating agricultural research, it will be too late. There is an extended lag-phase from initiation of the research until new technology is developed and ultimately applied in the field.

AGRICULTURAL RESEARCH SERVICE (ARS)

The NCA supports the concept of the ARS Program Plan which provides for close coordination with other agencies and organizations and identifies and allocates resources to high priority research programs. This is consistent with ARS's mission of producing new knowledge and technologies for agriculture and the U.S. consumer.

We commend USDA for recommending an increase of $10.2M for FY '84 in support of ARS's Program Plan. Specifically, NCA supports the recommended increases in the following research areas for FY '84: Animal, +$2.107M; Processing, Storage and Food Safety, +$3.142M and Human Nutrition, $1.411M.

Under the Animal research area, the INTEGRATED REPRODUCTION MANAGEMENT (IRM) program has been identified as one of the highest research priorities among the members of the Forum for Animal Agriculture. The degree of this support was evidenced in a letter sent to the Honorable E. de la Garza, Chairman of the House Agriculture Committee, which was signed by the president or executive officer of the NCA, the National Wool Growers Association, the National Dairy Herd Improvement Association, the National Pork Producers Association and the National Milk Producers Association.

The IRM program is to be jointly coordinated at every phase by ARS, the Cooperative State Research Service (CSRS) and the Extension Service (ES). It is our understanding that ARS has committed approximately $1.5M to fund IRM for FY '84 provided that $1.5M is also appropriated for IRM in each of the CSRS and ES budgets.

The NCA would also agree with ARS that GENETIC ENGINEERING research is a high priority Animal research area. One of the first projects in this area would involve gene mapping. This could ultimately lead to the capability of incorporating valuable traits such as disease resistance into breeding animals.

The research area of Processing, Storage and Food Safety of animal products is also of considerable importance to the meat animal industry from both a domestic and export standpoint. Such research could lead to an expansion of exports by funding ways to delay spoilage, improve the overall quality of agricultural products and develop new ways to provide value added exports. The NCA has identified research on restructured beef products (i.e. reduction of connective tissue and new binding agents) and the identification of characteristics related to beef flavor as special areas of emphasis.

Human Nutrition research is another high priority research area for the entire meat animal industry. The positive nutritional aspects of meat in the diet need to be clearly identified and communicated to the American public.

Under the Plant research area, NCA and the Society for Range Management (SRM) request that $500,000 be authorized to conduct research on the BASIC MORPHOLOGY AND PHYSIOLOGY OF RANGE PLANTS. Such research will improve the fundamental knowledge base for interpreting plant responses to the climate, soil and organisms present on range ecosystems.

COOPERATIVE STATE RESEARCH SERVICE (CSRS)

The recommended FY'84 funding level for Payments under the Hatch Act under General Formula Programs at the FY'83 level represents a loss in inflation adjusted dollars. We would prefer this funding level be $159.745M, but in no case should this level be reduced below the $149.295M recommended. These funds are the foundation of the basic support of agricultural research in every state and are matched with state funding.

Under Special Research Grants, the NCA requests that $1.5M be appropriated to fund CSRS's portion of the INTEGRATED REPRODUCTION MANAGEMENT (IRM) program and that $7.156M be authorized to fund ANIMAL HEALTH RESEARCH.

The NCA commends USDA for including $4.5M under Competitive Research Grants for BASIC ANIMAL SCIENCE RESEARCH in high priority areas. However, this money should be available for basic animal science research in all areas, not limited to "overcoming reproductive problems" as noted in the USDA recommendation. The inference here is that IRM funding should come from this source -- NCA does not agree.

Animal Health and Disease Research, Section 1433, P.L. 95-113, should be funded at no less than the $5.76M it received in FY'83 to provide for maintenance of the essential element of existing programs. The USDA has traditionally recommended that this not be funded and Congress, in its wisdom, has always seen fit to restore these funds. Hopefully, this will be the case again in FY'84.

No funding has been proposed by USDA for RANGELAND RESEARCH (Subtitle M of Section XIV of the Agriculture and Food Act of 1981). However, on February 23, 1983 the House Agriculture Committee made the recommendation to authorize $1M to fund Subtitle M for FY '84. Both NCA and the Society for Range Management (SRM) request that this high priority item receive $2M, rather than $1M. It is important to note that the federal funds cannot be used unless they are matched on a 1:1 basis with non-federal funds. The 1981 Farm Bill also requires the Secretary of Agriculture to establish a RANGELAND RESEARCH ADVISORY BOARD. The NCA and SRM urge that this board be established and funded.

EXTENSION SERVICE (ES)

Under Special Emphasis Programs (Smith-Lever, Section 3d), NCA recommends that $1.5M be authorized to fund ES's portion of the INTEGRATED REPRODUCTION MANAGEMENT (IRM) program.

The USDA has recommended that the RENEWABLE RESOURCES EXTENSION ACT (RREA), P.L. 95-306, not be funded for FY '84. Both the NCA and the SRM request that the RREA be funded at $2M, but only with the provision that the Secretary of Agriculture be instructed to revise the fund allocation formula, giving an equal weighting factor to both rangeland and forest. If this is not done, neither NCA nor SRM will support funding in future years.

In addition, both the NCA and the SRM request that the RANGELAND MANAGEMENT PROGRAM LEADER position be established as a permanent position within ES and funded accordingly. This is a key position if there is to be coordination of a viable rangeland resources program at the national level.

MARKETING AND INSPECTION AGENCIES

Animal and Plant Health Inspection Service (APHIS)

The NCA has long recognized and supported the activities of APHIS. We have, however, been concerned over funding levels of certain programs and their effectiveness.

Brucellosis

The Brucellosis program is the largest and most significant part of the APHIS budget. NCA and the cattle industry have worked diligently with APHIS and state veterinary officials for many years to develop a workable program which will control and lead to the eventual eradication of brucellosis.

We believe funding for this program can be reduced from its current level and still accomplish our goals. The NCA does concur with the Administration that states, the industry, and the individual producer should assume a greater responsibility in this program.

For FY' 83, the Administration proposed a $30M reduction in the Brucellosis program from $90M to $60M. The NCA supported this proposal with two conditions: 1) there not be further reductions as proposed by the Office of Management and Budget, and 2) that industry have input into the allocation of funds.

Therefore, the NCA does not support the Administration's FY'84 proposal of further reducing the Brucellosis program to $50.5M. On the second condition, we have consulted with APHIS officials this past year on program allocations. Although cooperative in our efforts, the results have not been totally satisfactory.

We believe monies and manpower must be shifted and utilized in the high incidence states, particularly the class B and C states. The budget process has been frustrating in accomplishing these objectives.

NCA believes a viable Brucellosis program can be funded at approximately $65M dollars if the following recommendations are implemented:

a. Indemnity -- the NCA supports the USDA's proposal of a flat rate indemnity program.
b. In most cases, infected herds in high incidence B and C class states when identified through either primary or secondary surveillance procedures (after the first test), should be adult vaccinated to make remaining animals resistant or to stop the spread of infection to animals in that herd. This would give the infected herd a chance, through adult vaccination, to become resistant to infection. Only after an allowable time period would the herd be retested and indemnities paid. We believe as much as $10M could be saved in this area alone.
c. Depopulation -- NCA supports depopulation of infected herds in Free and A class states only.
d. Administrative Management and Overhead -- the 1983 brucellosis budget allocated 16½ percent ($12.9M) for administrative charges. Somehow this figure must be reduced. There should be an effort to better utilize manpower and manage the available resources. The Brucellosis program is carrying a disproportionate share of the APHIS budget. We have never had this area of the budget explained to our satisfaction. It appears to be the "sacred cow" of the program.

Our recommendations for this redirection of programs would not affect the existing and future state/federal cooperative agreements.

User Fees

The budget proposes the collection of user fees on the import-export of animals. This will require legislation.

The NCA has philosophically supported user fees. However, we have asked for further information on proposed legislation. The USDA estimates $1.8M revenue with this proposal. The NCA wants to know how such a program will affect the individual importer or exporter.

Scabies

The NCA believes a contingency fund should be established and maintained to deal with unforeseen outbreaks of disease or insects. Also, manpower utilization must be flexible to act rapidly and effectively in unusual situations.

Current outbreaks of scabies in Idaho and Nevada are examples of our concern for the need for contingency funds and flexibility in federal manpower.

ECONOMIC SERVICES

Statistical Reporting Service (SRS)

The USDA has recommended an increase of $.9M in SRS's FY'84 budget to add probability yield surveys for rice, grain sorghums and sunflowers. These are all relatively minor cash crops when compared to beef cattle which is the largest segment of American agriculture.

Before these new probability yield surveys are established, the NCA requests that SRS restore the July 1 Cattle Inventory and the Cattle on Feed Report to their pre-FY'82 level of accuracy and integrity. The July 1 Cattle Inventory Report currently omits state by state information and reports only the national inventory. The Cattle On Feed Report currently reports only 13 states, rather than the previous 23 states. Timely and accurate information on prices, inventory and intentions is critical to the beef cattle industry, especially in today's difficult economic times.

In conclusion, the cattle industry thanks this committee for the opportunity to present our positions on funding programs that are so important to the livestock industry.

SUMMARY OF REQUESTS AND RECOMMENDATIONS

SCIENCE AND EDUCATION

Agricultural Research Service (ARS)

1. ITEM: Animal Research
   REQUEST: Support recommended funding for
   A. high priority research such as Integrated Reproduction Management (IRM) program at $1.5M and
   B. Genetic Engineering.

2. ITEM: Processing, Storage & Food Safety
   REQUEST: Support recommended funding level of $91.402M.

3. ITEM: Human Nutrition
   REQUEST: Support recommended funding level of $29.042M.

4. ITEM: Plant Research
   REQUEST: Add $500,000 for research on the basic morphology and physiology of range plants.

Cooperative State Research Service (CSRS)

1. ITEM: Payments under the Hatch Act
   REQUEST: Prefer funding at $159.745M but certainly no less than $149.295M.

2. ITEM: Special Research Grants (P.L. 89-106)
   REQUEST: Fund
   A. Integrated Reproduction Management (IRM) program at $1.5M and
   B. Animal Health Research at $7.156M.

3. ITEM: Competitive Research Grants (P.L. 89-106)
   REQUEST: Support funding of animal science research at $4.5M as recommended; funds should not be restricted to investigation of reproduction problems.

4. ITEM: Animal Health & Disease Research (Section 1433, P.L. 95-119)
   REQUEST: Fund at no less than $5.76M.

5. ITEM: Rangeland Research (Subtitle M, Section XIV, P.L. 97-98)
   REQUEST: Fund at $2M.

6. ITEM: Rangeland Research Advisory Board (Section 1440, P.L. 97-98)
   REQUEST: Establish and fund.

Extension Service (ES)

1. ITEM: Special Emphasis Programs (Smith-Lever, Section 3d)
   REQUEST: Fund Integrated Reproduction Management (IRM) program at $1.5M.

2. ITEM: Renewable Resources Extension Act (RREA), P.L. 95-306
   REQUEST: Fund at $2M; instruct changes in fund allocation administrative formula to allow a more equitable share of funds for range work.

3. ITEM: Rangeland Management Program Leader
   REQUEST: Establish as a permanent position and fund.

MARKETING AND INSPECTION AGENCIES

Animal & Plant Health Inspection Service (APHIS)

1. ITEM: Brucellosis program
   REQUEST: Fund at $65M.

2. ITEM: User fees on the import/export of animals
   REQUEST: Support concept; need more information on impact on importers and exporters.

3. ITEM: Scabies
   REQUEST: Need contingency fund and flexibility in federal manpower to react to outbreaks.

ECONOMIC SERVICES

Statistical Reporting Service (SRS)

1. ITEM: July 1 Cattle Inventory Report and the Cattle on Feed Report.
   REQUEST: Increase funding to restore accuracy to pre-FY '82 level.

AGRICULTURAL RESEARCH

Mr. WEBER. The NCA supports the current effort to reduce the Federal deficit and to maintain fiscal responsibility. At the same time, we want to stress the continuing need to fund agricultural research to insure adequate future supplies of food and fiber to meet domestic and export needs.

In spite of the current surpluses of some commodities, funding for agricultural research must not be reduced from current levels. Such funding is a long-term investment in the future prosperity of the United States.

The NCA supports the concept of the ARS program plan which provides for close coordination with other agencies and organizations and identifies and allocates resources to high priority research programs.

We commend the USDA for recommending an increase of $10.2 million for fiscal year 1984 in support of the ARS program plan. Specifically, NCA supports the recommended increases in the following research areas for the fiscal year 1984 budget: animal processing, storage and food safety, and human nutrition.

Under the animal research area, the integrated reproduction management program has been identified as one of the highest research priorities among members of the forum for animal agriculture. Human nutrition research is another high priority research area for the entire meat animal industry. The positive nutritional aspects of meat in the diet need to be clearly identified and communicated to the American public.

Under the plant research area, NCA requests $500,000 be authorized to conduct research on the basic morphology and physiology of range plants.

COOPERATIVE STATE RESEARCH SERVICE

In the field of the Cooperative State Research Service, the recommended fiscal year 1984 funding level for payments under the Hatch Act under general formula programs at the fiscal 1983 level represents a loss in inflation adjusted dollars. We would prefer this funding level be $159,745,000, but in no case should this level be reduced from the $149,295,000 recommended. These funds are the foundation of the basic support of agricultural research in every State and are matched with State funding.

Under the special research grants, the NCA requests $1.5 million be appropriated to fund CSRS' portion of the integrated reproduction management program and that $7,156,000 be authorized to fund animal health research.

No funding has been proposed by USDA for rangeland research under subtitle M of section 14 of the Agriculture and Food Act of 1981. NCA requests this high priority item receive $2 million. It is important to note that the Federal funds cannot be used unless they are matched on a 1-to-1 basis with non-Federal funds. The 1981 farm bill also requires that the Secretary of Agriculture establish a Rangeland Research Advisory Board. The National Cattlemen's Association urges that this Board be established and funded.

EXTENSION SERVICE

For the Extension Service, under special emphasis programs, NCA recommends that $1.5 million be authorized to fund the Extension Service's portion of the integrated reproduction management program.

The USDA has recommended that the Renewable Resources Extension Act not be funded for fiscal year 1984. The NCA requests the RREA be funded at $2 million, but only with the provision that the Secretary of Agriculture be instructed to revise the fund allocation formula, giving an equal weighting factor to both rangeland and forestland. If this is not done, NCA will not support funding in future years.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

In the field of the Animal and Plant Health Inspection Service, the NCA has long recognized and supported the activities of APHIS. We have, however, been concerned over funding levels of certain programs and their effectiveness.

The brucellosis program was the largest and most significant part of the APHIS budget. NCA and the cattle industry have worked diligently with APHIS and State veterinary officials for many years to develop a workable program which will control and lead to eventual eradication of brucellosis.

We believe funding for this program can be reduced from its current level and still accomplish our goals. However, we do not support the administration's proposal to fund the program in fiscal year 1984 at $50.5 million.

The National Cattlemen's Association believes a viable brucellosis program can be funded at approximately $67.5 million if the following recommendations are implemented:

First, a flat indemnity program. Second, in most cases, infected herds in high incidence B and C class States when identified through either primary or secondary surveillance procedures should be adult vaccinated to make remaining animals resistant or to stop the spread of infection to animals in that herd. This would give the infected herd a chance, through adult vaccination, to become resistant to infection. Only after an allowable time period would the herd be retested and indemnities paid. We believe as much as $10 million could be saved in this area alone.

Third, depopulation. NCA supports depopulation of infected herds in free and A class States only.

Fourth, the 1983 brucellosis budget allocated 16.5 percent of $12.9 million for administrative charges. Somehow, this figure must be reduced.

Our recommendations for this redirection of programs would not affect the existing and future State-Federal cooperative agreements. We believe money and manpower must be directed and used in high density areas, particularly class B and C. The budget process has been frustrating in accomplishing these objectives.

USDA proposes to collect user fees on imports and exports. NCA supports the concept of user fees. We have asked for further information on proposed legislation to accomplish this. USDA estimates $1.8 million revenue with this proposal. The NCA wants to know how such a program will affect the individual importer or exporter.

Finally, regarding the APHIS budget, NCA believes a contingency fund should be established and maintained to deal with unforeseen outbreaks of disease or insects. Also, manpower utilization must be flexible to act rapidly and effectively in unusual situations.

Mr. Chairman, the cattle industry thanks this committee for the opportunity to present our position on the funding programs that are so important to the livestock industry. Thank you.

Senator EAGLETON. Thank you very much, Mr. Weber. We appreciate it. Thank you, sir, for being with us.

BAYLOR COLLEGE OF MEDICINE

STATEMENT OF BUFORD L. NICHOLS, JR., M.D., SCIENTIFIC DIRECTOR, CHILDREN'S RESEARCH CENTER

Senator EAGLETON. Next is the Baylor College of Medicine, Dr. Buford Nichols, scientific director, Children's Research Center.

Dr. NICHOLS. Senator Eagleton, I would like to introduce Brad Smith from Senator Tower's office, and Mr. D. Gayle McNutt, director of communications, Baylor College of Medicine.

It has been several years since we have had a chance to talk with you about the Children's Nutrition Research Center and about the progress and problems we have tackled, and some of the problems you asked us to solve.

BACKGROUND ON THE CHILDREN'S NUTRITION RESEARCH CENTER

The first chart summarizes the publications of the Children's Nutrition Research Center from 1979. Last year, we published more than 50 papers in major scientific journals, more than the four other regional centers together. Our program is growing scientifically.

Senator EAGLETON. What are the other four research centers? You said you published more papers than the other four put together.

Dr. NICHOLS. Grand Forks, Tufts, and San Francisco. We didn't count Beltsville, which is the oldest center, in that analysis.

The next chart illustrates the levels of funding as Congress began this program in 1979. We had an increase with the additional laboratory in 1980. We have had no relative increase in fiscal years 1981, 1982, and 1983.

The next chart illustrates the scientist years, 1979 being the first year. The number of scientists has actually declined because of the status level of funding during the past 3 years. All of the other regional centers have other increases in funding in the last year or two. All of the other regional facilities have completed their facility. The facility at Tufts was dedicated last September. We are hopeful we will be able to see the program continue to develop scientifically in terms of attracting the top scientists in the field and in terms of development of a permanent facility necessary to make the national program that was envisioned when it was started in 1979.

I wonder if you have any questions for us.

Senator EAGLETON. Well, you said at the outset you were going to tell us about some things that you have solved that we asked you to solve. What did you solve?

Dr. NICHOLS. One of the things Congress was very interested in was the coordination between the ARS program and the National Institutes of Child Health and Human Development. I can now report that we are well coordinated. They attend all our management seminars. We are fully integrated with their thinking on these subjects. We have a long series of projects, from Miles City, Mont., to Raleigh, N.C.

Senator EAGLETON. How often do the child health and human development people sit in with your folks down in Baylor?

Dr. NICHOLS. They send a representative to all the executive committee meetings, and are a voting member of our subcommittee. They also send their representative to all of our scientific review meetings, which were held on an annual basis in the first years and are now held on a biannual basis.

Senator EAGLETON. From time to time, do they give you suggestions as to the type of research they think should be pursued?

Dr. NICHOLS. Yes; and they have cofounded with us some of our workshops on scientific priorities. One issue we have not yet addressed, and this is the fourth year we have requested funds, is to study nutritional needs during pregnancy.

FACILITY NEEDS

Senator EAGLETON. Is your facility set up similarly to the Tufts facility? Where are you physically located?

Dr. NICHOLS. We are in rented quarters. We converted the doctors' office building to laboratories, with great difficulty. The continuing expansion is going to require that we address the facility need. With the architects' and engineers' planning statement we have, we could not enter it before 1989 or perhaps 1990.

Senator EAGLETON. What is your direct affiliation and access to the Baylor medical complex?

Dr. NICHOLS. The present operation is through a cooperative agreement between the Department of Agriculture and Baylor College of Medicine. We have full access to patient investigation, and we utilize a great many of the other resources, including the NIH-sponsored clinical research center where mothers are admitted for investigation along with their babies.

THE WIC PROGRAM

Senator EAGLETON. You mentioned in answer to an earlier question the need for studying nutritional requirements during pregnancy. Have you had an occasion to evaluate the WIC program in pursuit of your research?

Dr. NICHOLS. We do a fair amount of consulting with the WIC people because of scientific skills and expertise in the field. We are not responsible for the evaluation of that program. They have that legal responsibility, but a great deal of research we do has great bearing on the decisions made about the food packages and about the targeting of populations selected for those programs.

Senator EAGLETON. Although one may research various facets of nutrition during pregnancy, we don't need much research on the general concept that good nutrition during pregnancy is enormously beneficial.

Dr. NICHOLS. We believe for many reasons, most of them political, it has been very difficult to test that subjectively. We feel that, without a doubt, there are benefits to increased birth weight in infants. To prove and test the benefit-cost concept has been difficult to date, and the basic problem is the lack of credible precision in scientific techniques. We are still limited in measuring these babies at birth to evaluate their nutritional status.

Senator EAGLETON. Thank you, Dr. Nichols. Thank you, gentlemen.

We will take a 2-minute break.

[Dr. Nichols' statement follows:]

STATEMENT OF DR. BUFORD L. NICHOLS, JR.

The Children's Nutrition Research Center is one of five Human Nutrition Centers within the Agriculture Research Service of the United States Department of Agriculture. It is one of four centers dispersed on a regional geographic basis and is the only Center dealing exclusively with research of nutritional needs of mothers, infants and children.

The fifth year of studies is in progress at the Children's Nutrition Research Center. Our program was developed with the philosophy that a strong research program would be launched and that permanent facilities would be deferred temporarily.

The research program is operating at full capacity within our budget limitations. Last year the investigators of the Center produced 50 scientific publications, an average of almost one per week. This spring our investigators are presenting seven of the 90 scientific papers at the American Pediatric Society and four of the 43 papers at the American Society for Clinical Nutrition. The quality of scientific effort to meet the mission of the Center has been evaluated in detail by scientists from outside the Center. After their seventh meeting, the Council of Scientific Advisors reported: "The Council viewed with satisfaction the pace and focus of the program."

We are working closely with other Agricultural Research Service programs to be sure that all our efforts are coordinated. As an example, scientists from six ARS laboratories and centers in the Southern Region recently visited our Center. As a result of that meeting, collaborations are being established with animal and plant physiologists from three other centers.

Since our last appearance before this subcommittee, we have participated in the development of the ARS program plan for the balance of this decade.

Improved human nutrition, recognized as a national priority by the

ARS, is one of its six programs directed to "sustain production of food and fiber." The ARS strategy to achieve program balances calls for a redirection of funds within ARS to permit the steady growth of human nutrition centers. The target date to achieve these reallocations in 1990. Chart I (attached) shows the three elements for future program development of the Children's Nutrition Research Center.

In the right hand portion of the chart, the top bar indicates the present level of ARS support for these elements. The dark bar is the planned ARS program level, to be accomplished by redirecting support during the remainder of this decade. Some of these elements are shared with other human nutrition centers.

Our anticipated growth rate, year by year, is indicated below the dark bars. We are prepared to implement the ARS program. Growth will be based on scientific considerations as reflected in this chart.

The Center has one need outside the scope of the ARS timetable, a program to study nutritional needs during pregnancy. This is the fourth year we have requested funds for this program, which will allow us to study the full time span from conception through the first year. Nutritional effects of a pregnant woman on the fetus are extremely important within the scope of our research. Further delay will be detrimental to our entire program. We are requesting an additional $1.3 million for this purpose.

Mr. Chairman, I would now like to discuss a need of the Children's Nutrition Research Center that is becoming critical: our physical facilities.

During our first five years, the Center has developed an active research program in leased facilities. Thus far, we have been able to expand laboratory space as required. At present, 17,545 square feet of office space have been leased for laboratory use. Based on projected program growth within the ARS plan, space will soon be a limiting factor. This fact led the Council of Scientific Advisors to conclude that "the scope, growth and importance of the research underscore the need for the planned new building."

The time has come to face the need for a permanent facility. We have completed a feasibility study, a copy of which is submitted for the record. If facility architectural and engineering funds are appropriated in Fiscal Year 1984, the building will not be completed until Fiscal Year 1989. Occupancy would take place late in Fiscal Year 1989 or early 1990.

We are requesting an appropriation of $6.9 million for architectural and engineering work on a permanent facility.

Mr. Chairman, the request to fund the construction of this facility is totally in line with the construction of the facility at Tufts University, a nutrition research center for the aging. The new building at Tufts was dedicated last fall.

The Children's Nutrition Research Center is now the only one of the four regional human nutrition centers that does not have a permanent facility.

We would also note that the Children's Nutrition Research Center is the only one of the four regional centers that has had no budget increase during the last three years.

In 1981, we were funded at the same level as the Tufts center, approximately $2.9 million. The other two centers were funded at lesser levels.

This past year the San Francisco center, in the Western Region, received a $1.2 million increase, to a level of $3.2 million.

The center at Grand Forks, North Dakota, in the North Central Region, has received an additional $1.7 million, raising its level to $5 million.

The Tufts center, at Boston in the Eastern Region, was given an additional $3.3 million, raising its total to $6.6 million.

The Children's Nutrition Research Center, at Baylor College of Medicine in Houston, in the Southern Region, received no increase and its operations remain funded at $2.9 million.

We have actually had to cut back on our scientific programs because of the loss of "real" funding to inflation.

Chart II will show graphically the effect of these budget conditions on our programs. While appropriations and space have remained at virtually the same level, the science years (reflecting numbers of scientists) have decreased. Despite these circumstances, you can see that our scientific production (as measured by numbers of publications) has increased.

We have tried in every way possible to meet and exceed our scientific obligations as part of the nation's human nutrition research effort. We have also tried to be patient and understanding of the federal budgetary conditions that have resulted in delays in our original projections for program and facilities development. We do not begrudge the increased funding to the other human nutrition centers.

It would seem, however, that we should now be in line for a commensurate increase in funding to place us on a par with the other centers and for a permanent facility comparable to those in the other regions of the country.

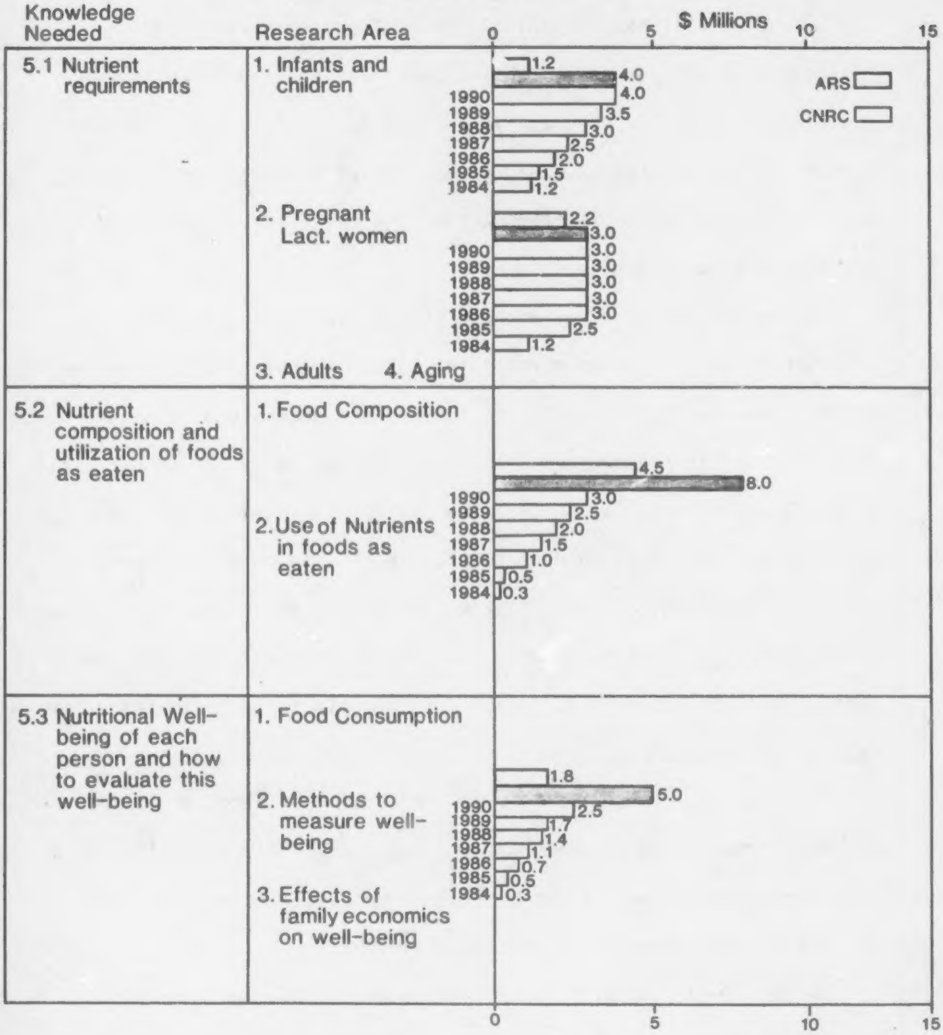
Mr. Chairman, I am proud to be the scientific director of the Children's Nutrition Research Center. Its scientific accomplishments and the studies projected for the future are exciting and challenging to all of our physicians and scientists involved.

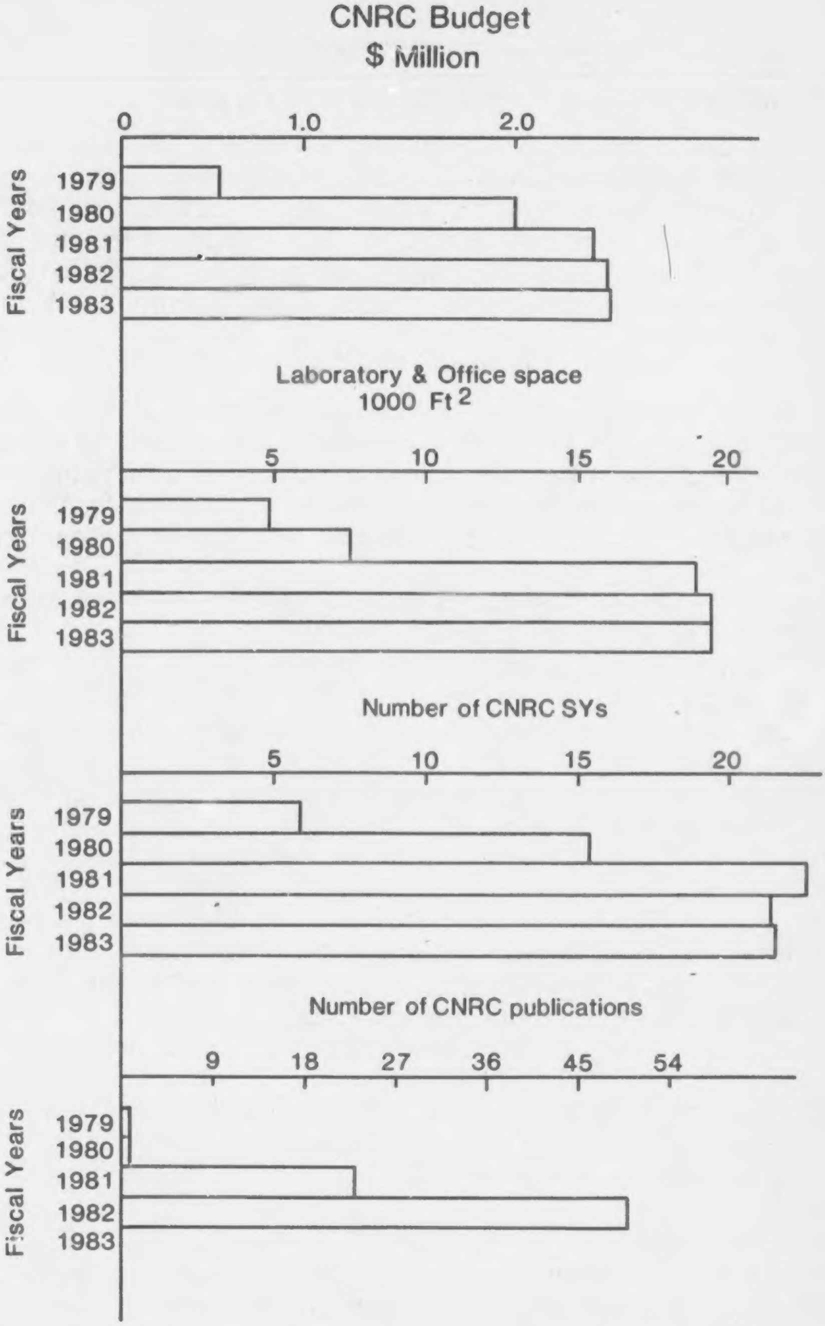
We see the Children's Nutrition Research Center as a national resource that offers the opportunity to provide healthier lives for our citizens of the future through the best nutrition during the critical beginning stages of life. We believe that your confidence in this scientific effort will bring rewards to your children and their children.

Thank you for your courtesies, Mr. Chairman. We will appreciate your careful consideration of the needs of the Children's Nutrition Research Center.

CHART I

Role of CNRC in Meeting ARS's Research Plan of Insuring Adequate Human Nutrition





CNRC Budget
$ Million

Laboratory & Office space
1000 Ft²

Number of CNRC SYs

Number of CNRC publications

NATIONAL OAT IMPROVEMENT COMMITTEE

STATEMENT OF CHARLES F. MURPHY, REPRESENTATIVE

Senator EAGLETON. Next we will hear from Dr. Charles Murphy, representing the National Oat Improvement Committee.

Dr. MURPHY. Thank you, Mr. Chairman. I am representing the National Oat Improvement Committee. This is not a crop that is in surplus. There is only one commercial company in the United States doing any oat improvement work, so most of the responsibility is in the public agencies.

OATS AIDS DIABETICS

I want to mention a couple of very exciting things about oats. Oat protein has long been known as most nutritious in protein. Oat fiber is uniquely beneficial. It has been shown to have lower serum cholesterol, and even in some cases, to reduce the insulin requirement for diabetics. There are some exciting concepts regarding oats, but we are not testifying today for money for oats.

Senator EAGLETON. How does a diabetic improve his health with the consumption of oats? I am curious about that.

Dr. MURPHY. There is an oat fiber fraction that is high. It can be milled and gives a higher percentage of fiber than you would normally get from oatmeal. It is usually eaten in cereals or muffins and can be made to be very tasty.

Senator EAGLETON. Where have the experiments on this been done?

Dr. MURPHY. At the University of Kentucky.

Senator EAGLETON. Do results seem to indicate a reduced need for insulin?

Dr. MURPHY. The results are preliminary, but they have had patients who have had their insulin requirements eliminated. I assume this would be a modest requirement to start with, but others have significantly reduced their insulin requirements.

Senator EAGLETON. Are they conducting this research under an NIH grant?

Dr. MURPHY. I don't believe so. I don't know the actual funding on that, Senator.

Senator EAGLETON. Continue.

GERMPLASM

Dr. MURPHY. Anyhow, we are particularly interested in the national plant germplasm system which affects all the crop species in the country. I happen to chair the task force which came up with a long-range plan for the germplasm system. This plan was released through the Division of Science and Education in October 1981. We made budget projections over a 15-year period, rather specific projections for the short-year term. Our recommendation for fiscal year 1983 was an $8 million increase, and for fiscal year 1984, a $6 million increase. I can assure you these are not padded figures. These are real figures.

The increase in the 1983 budget for germplasm was $3.8 million. We are concerned that the 1984 budget showed no increase for the germplasm system.

Also, the most important facility need in the germplasm system was the USDA small grain collection facility to house the selection of germplasm for the small grain species. There has yet to be an appropriation for this item. This is also a concern of ours.

PLANT BREEDING RESEARCH

Beyond that, I would like to mention a couple of policy issues that don't relate to germplasm, but I think are important. There are pressures on public agencies to get out of plant breeding because private companies are going to do all the plant breeding. There also are some people who would ask why we should do any plant improvement on breeding research, because genetic engineering will solve all these problems in the future. We are very supportive of private industry, and it is doing everything it can, but we recognize there are a lot of crops that do not offer the profit potential. Oats is a good example of this. So, we see the opportunity for improvement of plant species.

GENETIC ENGINEERING

We are also excited about the prospects in the area of genetic engineering. I know responsible genetic engineers who estimate it could be almost half a century before the multigenic characters for plant improvement can be effected in engineering.

Senator EAGLETON. Half a century?

Dr. MURPHY. Approaching half a century. These are not my predictions, but those of scientific people in the field.

Senator EAGLETON. That would be the consensus of the scientists?

Dr. MURPHY. Yes; I think those who have an understanding of plant breeding and the kind of characters and interaction of those characters that is really important.

So, our pitch to you is not to diminish the research in genetic engineering. However, this should not be a reason to quit funding the more conventional forms of research.

In this regard, ARS is faced with these and other pressures from agriculture. Our group was formed shortly after the release of the strategic plan. We looked at some of the major cuts in breeding and genetics. We were understandably concerned enough to talk with people on the Hill, which included some of your staff who are here today. We also talked with some of the people in ARS. I guess we would say our reaction is, after listening to everything, that there are a number of things we may not like, but on the whole we would like to be qualitatively positive about the report. ARS deserves credit for taking a look at their research and redirection. If there is research that has been ongoing and productive and is not appreciated, it should be the obligation of people, such as ourselves and friends of research in Congress to speak up and justify their existence. In the future, we will work with the people at USDA on the justification of this research.

As I said before, this is something to talk about and is not set in concrete. I think we would like to be supportive of such a plan.

If you have any questions, I would be glad to answer them.

Senator EAGLETON. Thank you very much, Dr. Murphy. I appreciate your statement.

[Dr. Murphy's statement follows:]

STATEMENT OF CHARLES F. MURPHY

My name is Charles F. Murphy. I am a professor of crop science at North Carolina State University. My profession is plant breeding. I am speaking today as a representative of the National Oat Improvement Committee (NOIC) and its parent group, the American Oat Workers Conference.

I wish I could take the time to elaborate on the special values of oats to U.S. agriculture. Especially the nutritious qualities of oat protein and the uniquely beneficial nature of oat fibre. The purpose of this presentation, however, is to address budgetary issues relating to the National Plant Germplasm System (NPGS) and those policy issues which impact upon this type of funding.

First, let me discuss the importance of the NPGS. Germplasm resources are the foundation of plant improvement. The NPGS represents a continuum of activities which begins with the acquisition of needed germplasm, is dependent upon maintenance of collected materials, gains usefulness as the collections are evaluated, and reaches fruition as the germplasm is enhanced and further utilized by plant scientists. A detailed account of these activities is not appropriate at this time but I can assure you that, while not particularly glamorous, they are of the utmost importance and have been neglected far too long.

Second, I would like to discuss specific funding requirements for the NPGS. You are undoubtedly aware that additional funding for the NPGS has repeatedly been targeted as a major objective by the Department, by the Joint Council, and by the Users Advisory Board. I would particularly point to the Long-Range Plan (1983–97) for the NPGS (LRP-NPGS) which was released by USDA on October 20, 1981. That document recognized both the magnitude of the needs within the NPGS and their urgency. An $8 million increase in the recurring budget was considered necessary in fiscal year 1983 and an additional $6 million increase was considered in fiscal year 1984. Also, a $2 million appropriation to construct a new USDA small grain collection facility was listed as the most urgent facility need. It is distressing to note that the fiscal year 1983 increase was limited to $3.8 million, that no increase for the NPGS has been included in the fiscal year 1984 budget, and that no funding has been proposed to construct a new facility for the USDA small grain collection.

Finally, let me say just a few words about biotechnology and public versus private roles in production-oriented research. As exciting as are the advances in biotechnology, we are bothered by the perception by some budget-makers that this technology will eliminate the need for an NPGS or for plant breeding. In reality, this technology will serve as a valuable tool to aid these efforts and it is estimated by responsible biotechnologists that it will probably be at least 50 years before this technology will have much impact upon the complex (multigenic) traits which are so important in plant improvement.

Increased private investment in plant breeding activities is also exciting. Again, though, we are concerned about those who would draw a line and simplistically designate public or private areas of research. Private efforts will only flourish where there is adequate profit potential. It is not yet known whether any self-pollinated crops, for example, wheat or soybeans, will offer this profit potential. And even the largest companies engaged in the more profitable breeding of hybrid corn or sorghum recognize that they cannot afford to support the range of activities supported by the NPGS. Additionally, there are numerous crops, for example, oats, barley, red clover, or peanuts, which are of great national importance but do not offer the profit potential to stimulate commercial activity.

Thank you for your time and attention. I will be happy to answer any questions you might have.

Federation of Scientific Agricultural Societies

STATEMENT OF WILLIAM COLVILLE, REPRESENTATIVE

Senator EAGLETON. Next, we have the Federation of Scientific Agricultural Societies, represented by Dr. William Colville. He is from the College of Agriculture, University of Georgia.

Dr. COLVILLE. Mr. Chairman, I would like to say amen to the comments which preceded my testimony. I am president of the Crop Science Society of America, a group of 500,000 crop scientists, professionals, and genetic engineers. There are too many genes which don't grow enough yield to be able to manipulate just one and do something about it. I wanted to add that to the statement.

Sir, I represent the Federation of Scientific Agricultural Societies, a group of 16 professional societies. I also am a member of CAST, the Council of Agricultural Sciences and Technology, and I am here today as a member of its executive committee. I also am a former Iowa farmer, and I feel I have my feet on the ground part of the time.

GRADUATE FELLOWSHIPS

First, sir, we are here today to respectfully request your support of funding for competitive graduate fellowships in the U.S. Department of Agriculture, as well as for research, instruction, and extension programs that you have provided down through the years. Thank you again for giving us this opportunity to offer support to help alleviate a human capital shortage that threatens not only American agriculture, but also the agriculture of the world and the millions and millions of people it feeds.

We are seriously threatened in all areas of agriculture with a shortage of highly qualified scientists, teachers and professionals in technology and management. The manpower shortage is critical now and will become even more critical in the next two decades. Especially critical are going to be those areas with master and doctoral degrees in agricultural disciplines. They are not, and will not be, available unless our outstanding youth are provided the encouragement to obtain advanced training.

Let me emphasize a few problems.

Entering undergraduates are not prepared to handle the fundamental science of today—the mathematics, the chemistry, these type of things.

Some 25-percent fewer individuals will constitute our college-age group in the next decade. Agriculture's 5 percent of our Nation's population used to provide many of our Ph. D.'s, our faculty, et cetera. That group is decreasing in size. More and more of our students are coming from nonrural backgrounds. Two-thirds of our graduates are from nonfarm backgrounds. This creates problems, and it indicates we will have to turn to internships and other procedures to acquaint our students with the profession, as the medical and legal professions have had to do in the past.

Unusually high numbers of scientists—and you have heard this before—began their careers with the GI bill after World War II. On my faculty of 62, and I apologize for using that, 8 will retire in the next 2 years. This faculty makes up less than 4 percent of the Nation, as we have 1,500 agronomy professors in the university system. That means we will have to have 180 new Ph. D.'s by the year 1984 if those figures are valid. These do not include replacements at the U.S. Department of Agriculture or in business. We produce, on an average, 90 to 130 per year, and I am talking about agronomy alone, because that is the area that I know best. All disciplines have the same problem.

Average starting salaries that are indicated for graduates are $15,000. Don't let that mislead you, because that is not true of the people we are interested in. The people we are interested in are those student leaders who are bright, articulate, and well-rounded. They are offered research jobs or jobs with industry that are quite enticing. I apologize again for using a personal reference, but my daughter, who has a B.S. in agronomy and is finishing her M.S. at Iowa State, was recently enticed by an offer of over $30,000, with enough fringe benefits to go to $40,000, before she finished her master's degree.

Senator EAGLETON. That was her first major job?

Dr. COLVILLE. She did not take the offer.

Senator EAGLETON. She didn't take it?

Dr. COLVILLE. With a Ph. D., she might make $28,000.

Senator EAGLETON. But she was offered $40,000?

Dr. COLVILLE. She was offered a total package that was nearly that amount.

Thanks to Dad she is going to make out. What she is interested in is people. She has what is takes to make a teacher. That is what she wants to do. Many new science majors don't want to teach. Our bright, young people are going with industry, places that are paying good salaries. These are the jobs they are taking, rather than accepting a $5 to $7,000 a year position without a prospect of advancement before 4 or 5 years.

Senator EAGLETON. It is virtually impossible in our State to find somebody who is qualified to teach high school physics or chemistry. So, what we have are people who stay and try to keep 1 or 2 days ahead of their students.

Dr. COLVILLE. Please allow me, sir, if I may, to make one other interjection. Many of our high school chemistry and science teachers are taught in schools of education and not in schools of science. I think that is part of our problem.

Sir, the program we are discussing serves not only agriculture, but all of humanity.

Senator EAGLETON. What is the beginning slot on your faculty in the School of Agriculture for a young professor with a Ph. D.?

Dr. COLVILLE. Twenty-eight thousand dollars.

Senator EAGLETON. Do you hire anybody without a Ph. D.?

Dr. COLVILLE. We will not hire anyone without a Ph. D. The highest beginning salary I have heard is at the University of Minnesota, and that is $30,000.

As you know, the Bankhead-Jones program was discontinued, but the federation would recommend that you support the efforts of RICOP of the National Association of State Universities and Land-Grant Colleges to provide funds for competitive fellowship programs in food and agricultural sciences. It is important, we believe, that these funds be assigned to the U.S. Department of Agriculture to be awarded competitively to qualified students in colleges and schools of agriculture of known reputations in graduate training of agricultural scientists. Care should be implemented to prevent these funds from becoming a portion of formula funds or becoming additional support for those areas normally supported by NSF, NIH, Department of Defense, or other federally supported programs.

Thank you.

Senator EAGLETON. Dr. Coville, do you think we will have to go to some sort of a system whereby, in order to keep young people who have been educated in various scientific pursuits, instead of their going with private companies that can offer more attractive salaries and fringe benefits, we are going to have to consider some kind of a system of subsidizing tuition, and getting, in return, a certain number of years of public service? We have the Military Medical College in Bethesda now, and as part of becoming a student there you are required—I don't know the exact number—to provide a certain number of years of service as a result of having received your education with the Federal Government paying for it.

Dr. COLVILLE. Some type of subsidization would help. When they get $4 to $7,000, and they take out income tax and tuition, they are on starvation wages. They need more financial support for that period of time, so the other offer does not look so attractive. You have made a very good suggestion, sir.

Senator EAGLETON. Thank you very much.

[Dr. Colville's statement follows:]

STATEMENT OF WILLIAM L. COLVILLE

SUMMARY

Agricultural Education and Research

Food, feed and fiber and its effective marketing, processing and distribution make up a large portion of this nation's strength. Our basic well being is based on an excellent supply of high quality food stuffs. No other nation in the world can offer the food necessary to sustain its standard of living with an agricultural workforce base of less than 5%. This group of dedicated citizens in turn release 95% of our nation's work force to follow other pursuits - auto making, electronics, space age technology, research of all types and even governmental activities, who do not have to worry about the source of high quality food. High and low income peoples enjoy many of the benefits of past agricultural research. Agricultural research has returned 40 to 50 percent on each dollar invested.

For more than the past decade federal funds for research and development have remained relatively constant with the 1967 dollar. If increases have come about they originated from state appropriations - largely in terms of salary dollars to keep up with inflation. Attempts to maintain faculty salaries and thereby high quality faculties have reduced funds available for graduate training and research operations.

Agriculture is facing serious shortages of highly trained scientists and teachers. During the 1970's agriculture experienced a drastic change in its student enrollment carrying over into the 1980's. Enrollments expanded rapidly during the 1970's - as students sought the freedom of the rural setting. Our students (66%±) came from nonfarm homes. Females became nearly 33% of our students creating a different environment in a traditionally conservative male occupation. For example, Agronomy enrollment at Georgia increased from 45 to nearly 300 students over a four-year period. Totally new training programs had to be initiated, i.e. internships, hands-on experiences, etc., for these students didn't know the language of the farm, such as disk, plow, three-point hitch, futures marketing. Additional funds were not forthcoming so they came from other categories such as graduate fellowships. In fact federal Bankhead-Jones funds although not funneled directly into agriculture were eliminated.

Today these same young people are seeking graduate training to enter our research and teaching programs. Additional funds are essential to bring their creditability levels up to previous standards as early in their careers as possible.

Recommendation:

The Federation of Scientific Agricultural Societies supports efforts of RICOP of NASULGC to provide funds to competitive fellowship programs in the food and agricultural sciences. It is important that these funds be assigned to the United States Department of Agriculture to be awarded competitively to qualified students in Colleges and Schools of Agriculture of known reputations in graduate training of agricultural scientists. Care should be implemented to prevent these funds from becoming a portion of formula programs or becoming additional support for those areas normally supported by NSF, NIH, Department of Defense or other federally supported programs.

Chairman Cochran and members, I'm Bill Colville, Professor, Head and Division Chairman of Agronomy at the University of Georgia. Today I represent the Federation of Scientific Agricultural Societies [1/]. I'm here to respectfully request your support of funding for competitive graduate fellowships as well as for research, instruction and extension programs in agriculture. Thank you for giving us time to offer support to a means of alleviating a human capital shortage that threatens not only American agriculture but the millions if not billions of people that depend on this most valuable of resources - food, feed, and fiber. I know of no food source currently available to man that is not dependent upon chlorophyll, the "Key to Survival."

American agriculture is seriously threatened by shortages of highly qualified scientists, teachers, and professionals in technology and management. This is especially critical when one envisions agriculture as supplying some 20 percent of our nation's gross product. The manpower shortage is critical now and will become more severe in the next two decades. Especially, critical masses of individuals with master's and doctoral degrees in the agricultural disciplines are not nor will they be available unless our outstanding youth are provided the encouragement to proceed with advanced professional training. No agricultural discipline is immune to this problem.

Major problems exist:

1. Entering undergraduates are not well prepared to handle the fundamental science of today.
2. Some 25 percent fewer individuals will constitute our college-age population in the next decade. Agriculture's five percent of our nation's population, our traditional source of students, continues to decrease. Nonrural students do and will continue to create demands on teaching time and funds to acquaint them with problems of the farm or the agricultural business community. We have had to turn to internships and other procedures to acquaint our students with their profession as the medical and law professions have done for years.
3. Unusually high numbers of agricultural scientists and teachers began their careers with the GI Bill after World War II. In my faculty of 62, eight retirements are anticipated in the next two years. This faculty makes up less than 4% of the nation's University hired agronomic faculties, excluding USDA and other professional agronomists. Expanding that to the nearly 80

[1/] The Federation of Scientific Agricultural Societies (FSAS) was organized recently by 16 Professional and Scientific Societies representing the Food and Agricultural Sciences in an effort to provide a forum for interdisciplinary communication, and to enhance the capability of scientific agricultural workers to speak in a unified voice.

I am President of the Crop Science Society of America, one of the professional societies involved in FSAS activities, a member of the Executive Board of the Council of Agricultural Sciences and Technology (CAST), Distinguished Teacher of the American Society of Agronomy, a Fellow in the American Society of Agronomy, and a former Iowa farmer.

other university agronomy programs in the nation who now employ nearly 1500 scientists they will need nearly 180 new Ph.D.'s by late 1984. USDA and other replacement needs are not included. We produce 90-130 domestic new Ph.D.'s in agronomic areas per year. Agronomy is not alone in this near disaster for all agricultural disciplines suffer from the same fate.

4. Average starting salaries of $15,000 for a newly graduated B.S. student in agriculture are totally misleading in the context of entering new M.S. and Ph.D. professionals. The bright, articulate, well-backgrounded leader needed in research and teaching is sought out by industry with salary and fringe benefit packages that exceed Ph.D. salary offers made by the academic communities including USDA.

I apologize for a personal reference, but my daughter, a B.S. in agronomy, finishing her M.S. at Iowa State, was recently enticed with an offer of over $30,000 with fringes making a total package of nearly $40,000. With a Ph.D. she could earn $25,000 to $28,000. Her assistantship after tuition barely allows her to survive. She must provide her own transportation to her research. Thanks to Dad she makes out. What is she going to do? She's headed to Purdue to get the Ph.D. only because she's people-oriented and wants to teach.

I've personally directed nearly 30 graduate students. Today's student is not nearly as dedicated to the long hours of agricultural research and smaller salaries of academics as industry. Four to seven additional years beyond the B.S. to earn the Ph.D. causes many of our very best to take the jump to the high salaries in contrast to the $5,000 - $7,000 fellowship provided while doing graduate study from which tuition and income taxes place them well below the poverty income level.

Agronomy at Georgia is representative of other departments in all disciplines over much of the nation. We have 45 graduate students but only 12 funded assistantships. The remaining students are on personal funds, short term grants, AID contracts or home government funds. Total figures given on M.S. and Ph.D. graduates from American Colleges of Agriculture are often grossly misleading for up to 50 percent are non-American nationals (few if any of these are on fellowships or assistantships from funds provided agriculture by the federal or state sources).

As agricultural occupations have increased so has the range of people seeking agricultural careers. In the South less than 25% of our agricultural students live on farms. Nonfarm-reared students are looking "back to nature," seeking to provide humanitarian service, wanting a life outside of the city environment, and a job with a future. In my department of 17 teaching faculty we have hired 10 new faculty in 12 years. Of these, eight came from nonfarm-reared backgrounds. All are excellent scientists but each has had some difficulty dealing with on-farm communications.

In 1980, 40 percent of our undergraduates desired to go on for advanced degrees. Only 19 percent were expected to obtain M.S. or Ph.D. degrees. In the 1960's it was not uncommon for 40 percent of our B.S. graduates to actually obtain M.S. or Ph.D. degrees.

The program we are discussing is not self-serving to agriculture but serves all who eat, are interested in the national economy and of course the best interests of peace in a world of expanding population. We are speaking of public good as education benefits all.

A strong coordinated agricultural research program of basic and applied research, teaching and extension between the USDA, the Land Grant Colleges of Agriculture and agricultural business depends upon additional support to encourage the very best minds to choose an agricultural career. We have so far proven Malthus wrong. Let us not allow him to win this battle. We need your support for a non-formula competitive graduate fellowship program in the United States Department of Agriculture.

SUMMARY

Spiraling inflation and decreased availability of funds have curtailed the research, extension and instructional activities of our colleges of agriculture. Enrollment decreases are expected during the 1980's. With the current output of postbaccalaureate degrees, anticipated shortages of 50 percent or more in meeting Ph.D. staffing needs are seen. Animal Sciences, Agricultural Economics, Agricultural Engineering, Entomology, Plant Pathology, Horticulture, Food Science, Poultry Science, Agronomy and many other typical agricultural disciplines in the 1862 and 1890 Land Grant Institutions face a decreased output and/or quality of the information needed by agriculture to provide substance for the American public.

It is essential that the United States continue its leadership role in agriculture. I urge your favorable consideration of this request to strengthen our very enviable position as a supplier of high quality food, feed and fiber, not only for ourselves, but also for our friends across the world.

NATIONAL PEACH COUNCIL

STATEMENT OF LILLIE HOOVER, EXECUTIVE DIRECTOR

Senator EAGLETON. Next, we have the National Peach Council; Ms. Lillie Hoover is the executive director.

Ms. HOOVER. Senator, I am Lillie Hoover, executive director of the National Peach Council, and I represent the Nation's peach growers and persons in allied industry.

PEACH RESEARCH

First of all, I would like to thank you for this opportunity to present testimony on behalf of the Nation's peach growers, and I am here to request that more attention be given to peach research in the fiscal year 1984 appropriations for the USDA's Agricultural Research Service.

It is understood from previous inquiries to ARS that there are no proposed increases for peach research in fiscal year 1984. So, we are asking for an increase of $600,000 in the fiscal year 1984 appropriations bill for USDA's Agricultural Research Service specifically to support programs on research relating to peach tree decline which needs basic research in the areas of cold-hardiness, pruning, thinning, and disease control, along with research relating to post-harvest control of diseases that affect the maintenance of the quality of the peach.

Senator EAGLETON. Ma'am, I am not very knowledgeable about peaches. Is peach tree decline the name of a disease?

Ms. HOOVER. No; it is a general term. In some States in the South, it is peach tree short life, and in the North it is called peach tree decline. I will tell you a little why we need it.

Basically, our peach trees are dying prematurely, and this is the term scientists give to this occurrence. Years ago, peach trees survived over 60 years. Now, in Georgia the scientists are saying the average life of a peach tree is only 7 years.

At the Appalachian Fruit Research Station in Kearneysville, W. Va., I talked with some scientists who said there is no hard cause for peach tree decline. They said there is a genetic weakness, and they respond poorly to wounding, whether it is from cold temperatures, mechanical damage, disease, or insects. Last year, the peach growers had the worst crop in 30 years. They had three freezes. Now, some of our people are worried about the cold temperatures we have had this last week. Whether it is from mechanical damage or disease or from insects, other trees, such as those in the forest, normally respond to wounding by laying down protective barriers or walling off the wounded area to arrest the spread of disease, but the peach tree has very poor capability to do this. So, once it is wounded, whatever the source, it is open prey to a multitude of diseases.

Last year, in the Southeast alone, there was an estimated loss of $27 million to peach trees. There were also major losses in South Carolina, Georgia, Michigan, Pennsylvania, New Jersey, West Virginia, and southern California.

The scientists say that what needs to be done is to get tougher peach trees. There is no way you are going to entirely prevent these woundings to trees. Genetic control of the wound response has been demonstrated in other trees; therefore, research needs to be initiated to find peach trees that can more effectively wall off or compartmentalize wounded tissue.

Senator EAGLETON. Is there any research being done?

Ms. HOOVER. Yes, at the Appalachian Research Station they are working on the wounding problem. Also, at Clemson University in South Carolina, they are working on the peach tree short life problem. They got a grant last year—I think it was for $97,000—to work on the nematode problem which contributes to the problem in their particular area. In the northern areas, of course, we have the cold damage that contributes to the death of the peaches. So, there are many factors. What has happened in the past is that scientists have been more involved in producing a beautiful quality peach for the consumer and haven't paid as much attention to the trees as they should have.

That also brings us to our second problem, which is the control of post-harvest disease. Peaches are very perishable and delicate. They are also the No. 1 summer fruit. The shelf-life is much shorter than bananas, apples, oranges, and several other commodities. The post-harvest diseases are one of the main reasons for the short shelf-life. Basic research is needed on diseases that cause decay to insure that the consumer will have the availability of the nutritious peach as long as possible during the short season and at a reasonable cost. Because the grower has already invested in the care, culture, and harvest of the peach, losses are much greater if post-harvest disease ruins fruit which could have been sold.

At the present time, some progress has been made at the Appalachian Fruit Research Station on using a nonpathogenic organism that is antagonistic to the brown-rot fungus. This is to maintain high peach quality without the use of chemicals. These types of projects need to be expanded. With so much national attention on proper diet and proper nutrition, the consumer will ultimately be the benefactor.

We feel the problems of dying trees and extending the shelf life to insure the consumer of a nutritious product are national problems. We ask that the requested additional $600,000 be coordinated with ongoing and similar Federal or State projects in order to save money and avoid duplication.

APPALACHIAN FRUIT RESEARCH STATION

Before closing, we would like to commend this administration for their efforts to reduce Federal spending to the very minimum. But we feel that appropriations for agricultural research are a necessary investment for our country. We also would like to thank the subcommittee for providing funds to the initial staffing of the Appalachian Fruit Research Station at Kearneysville, W. Va. We view this research station as having the potential of one of the finest facilities in the world, and we encourage its use to its fullest capacity.

We thank you for letting us speak to you this morning. We ask that you give this request serious consideration.

Senator EAGLETON. What is the biggest peach producing State—Georgia?

Ms. HOOVER. California, then South Carolina and then Georgia, and then New Jersey and Pennsylvania.

Senator EAGLETON. Is there an experiment research station in Georgia?

Ms. HOOVER. Yes. Byron, Ga.

Senator EAGLETON. Do they work at all on this peach tree decline problem?

Ms. HOOVER. Yes, they do.

Senator EAGLETON. Thank you very much. We appreciate your testifying here today.

[Ms. Hoover's statement follows:]

STATEMENT OF LILLIE E. HOOVER

BACKGROUND

National Peach Council, a nation-wide non-profit association of peach producers, and persons in allied industry, is requesting that more attention be given specifically to peach research in the Fiscal Year 1984 Appropriations Bill for USDA's Agricultural Research Service (ARS).

Peaches are grown commercially in 32 states. They are a very important component of the American diet because they are an excellent source of vitamins, low in calories, and contain no sodium or fat. Fresh peaches are the number one summer fruit and are available May through September.

In 1980 and 1981, peach production was approximately 3 billion pounds and valued at approximately $360 million. The 1982 crop was damaged by early spring freezes and production was 2.3 billion pounds and valued at $303 million.

REQUEST

It is understood from previous inquiries to ARS that there are no proposed increases for peach research for Fiscal Year 1984. We are asking for an increase of $600,000 in the Fiscal Year 1984 Appropriations Bill for USDA's Agricultural Research Service specifically to support programs on research relating to peach tree decline which needs basic research in the areas of cold-hardiness, pruning, thinning, and disease control, and research relating to post-harvest control of diseases that affect the maintenance of the quality of the peach.

STATEMENT OF PROBLEM

Our industry has two big problems that require research. Number one, peach trees are dying prematurely. Early peach orchards on the Delmarva peninsula are reported to have survived up to 60 years in good health. Researchers in Georgia indicate that the average life of some trees is only 7 years. Number two, peaches have a very short shelf life. Both create problems with quantity and quality that economically affect not only the producer but ultimately the consumer.

Because agriculture in the United States is a collection of small businesses rather than large companies, no single farm or orchard can afford its own extensive research and development programs such as IBM, General Electric, or Monsanto. Therefore, growers depend on state and federal facilities to fill this role of short and long term research needs for our industry.

PEACH DECLINE RESEARCH

THE PROBLEM

Peaches are the most widespread tree fruit grown commercially in the United States and they are in trouble throughout their range. In South Carolina, over $2.5 million was lost the past three years from dead and dying peach trees. In 1982 alone, 136,000 peach trees died of "peach tree short life" in the southeastern United States at an estimated loss of $27.2 million. Major losses have also been reported from Georgia, Michigan, Pennsylvania, New Jersey, West Virginia, and California.

THE CAUSE

Research does not point to a common cause for peach tree decline. However, investigations at the USDA Appalachian Fruit Research

Station, Kearneysville, WV, indicate that much of the damage results from a common genetic weakness in peach trees. Peaches respond poorly to wounding whether it is from cold temperatures, mechanical damage, disease, or insects. Trees normally respond to wounding by laying down protective barriers (walling off) the wounded area to prevent the spread of disease. The peach tree has a very poor capability to do this. Thus, once wounded it is open prey to a multitude of disease causing organisms and insects.

WHAT NEEDS TO BE DONE

Since there is no way to entirely prevent wounding to peach trees we need to develop trees that respond more effectively to a wound no matter what the cause. Genetic control of the wound response has been demonstrated in other trees and should exist in peach. Therefore, research needs to be initiated to find peach trees that can more effectively wall off or compartmentalize wounded tissue.

Preliminary observations indicate that there is not enough genetic diversity in peach to breed and select the "tougher" trees that we are after. All of our present peach trees were selected and bred from a handfull of seed introduced from China. Therefore, commercial peaches in this country have a very narrow genetic base. Plant exploration into China and other Asian countries where the peach originated is needed to find superior genotypes for peach breeding programs.

EXTRA RESOURCES NEEDED

Present Federal or State funds are insufficient to undertake the above investigations. To accomplish these goals, two scientists (a plant pathologist and a plant breeder) would need to devote their full research time. Ongoing research at the USDA Appalachian Fruit Research Station, Kearneysville, WV, and the USDA Southeastern Fruit and Tree Nut Laboratory, Byron, Georgia, would compliment these proposed investigations.

CONTROL OF POST HARVEST DISEASES

Peaches are a very perishable and delicate commodity. Their shelf-life is much shorter than bananas, apples, oranges, and several other commodities. Post harvest diseases are one of the main reasons for shorter shelf life. Basic research is needed on diseases that cause decay and deterioration to insure that the consumer can have the availability of the nutritious peach as long as possible during the season at a reasonable cost. Because the grower has already invested in the care, culture, and harvest of a peach crop, losses are much greater if post harvest disease ruins fruit which could have been sold.

At the present time, some progress has been made at the Appalachian Fruit Research Station on using a non-pathogenic organism that is antagonistic to the brown-rot fungus which maintained peach quality. These types of projects need to be expanded. With so much national attention on proper diet and proper nutrition, the consumer will untimately be the benefactor.

SUMMARY

We feel we cannot look only to the individual state agricultural experiment stations to do this research. The problems of dying trees and extending the shelf life to insure the consumer of a nutritious product are national problems. We know that no single individual speaks for national policy concerning peach research. Priorities for federal facilities are established more or less independently from the states. We ask that the requested additional $600,000 be coordinated with ongoing and similar federal and/or state projects in order to save money and avoid duplication.

We commend this administration for their efforts to reduce federal spending to the very minimum. We are not asking for a hand-out - we are asking for an investment in American agriculture. Investments have paid handsome dividends in the past and consumers would ultimately benefit by having a continual supply of fresh peaches available over a longer period of time and at reasonable prices.

With the cut-backs in state and federal research spending, peach growers realize that they must begin to carry their share of the burden of research that will enable them to produce the quantity and quality of fruit necessary for them to maintain their livelihood and help feed the rest of the world. National Peach Council has budgeted two grants for 1983 to help with ongoing projects at Clemson for improvement of quality, and one at VPI for chemical thinning. The Council is also investigating the possibility of establishing a foundation or fund for direct contributions from the peach industry to support research funding.

Before closing, we would like to take this opportunity to thank the subcommittee for previously providing funds for the initial staffing at the new USDA Appalachian Fruit Research Station at Kearneysville, WV. We view this new research station as having the potential of one of the finest in the world and we encourage its use to its fullest capability.

We ask that you give our request serious consideration. We thank you for allowing us to make this presentation. We will try to answer any questions you may have.

SOCIETY OF AMERICAN FLORISTS

STATEMENT OF WILLIAM F. GUDE, MEMBER

ACCOMPANIED BY DARRYL D. McEWEN

Senator COCHRAN [presiding]. Our next witness is Mr. William Gude, Society of American Florists.

Mr. GUDE. Mr. Chairman and members, thank you for the opportunity to appear before you today regarding the needed funds for four extremely important projects at the Beltsville Agricultural Research Center, Md.

My name is Bill Gude, and I am a member of SAF: The Center for Commercial Floriculture. SAF is the only national trade association representing the entire U.S. floral industry. Its membership includes nearly 95 percent of the commercial flower and plant growers in the United States, as well as retailers, wholesalers, and related businesses.

By profession, I am a partner in Gude Brothers, Laurel, Md. My firm is a family-owned business, started in 1889, which now grows blooming plants.

With me today is Darryl D. McEwen, assistant executive vice president of SAF.

Mr. Chairman, in the interests of time I will not read my statement but would appreciate it being included in the record. We have some charts and photographs to point out why we are here. I believe it would speed things greatly if we show you those.

[The statement follows:]

STATEMENT OF WILLIAM F. GUDE II

SUMMARY

Project I

Renovations to greenhouses and other research facilities at the U.S. Department of Agriculture's Beltsville Agricultural Research Center in Maryland:

A.	Renovation of greenhouse that specializes in research on plant diseases	$300,000	
B.	Renovation of outdated heating system in another greenhouse	$ 80,000	
C.	Addition of nine new greenhouse units for entomology research	$135,000	
	Sub-Total		$515,000

Project II

Continuing and badly needed research on the serpentine leafminer:

A.	Per year, Beltsville laboratory	$200,000	
B.	Per year, cooperating researchers	$100,000	
	Sub-Total		$300,000
	TOTAL		$815,000

Thank you for the opportunity to appear before you today regarding needed funds for four extremely important projects at the Beltsville Agricultural Research Center in Maryland.

My name is William F. Gude II and I am a member of SAF: The Center for Commercial Floriculture. SAF is the only national trade association representing the entire U.S. floral industry. Its membership includes nearly 95 percent of the commercial flower and plant growers in the United States, as well as retailers, wholesalers and related businesses.

By profession, I am a partner in Gude Brothers, Laurel, Maryland. My firm is a family-owned business started in 1889 which now grows blooming plants.

With me today is Darryl D. McEwen, assistant executive vice president of SAF.

SAF's interest in these projects stems from personal visits to Beltsville by many floral industry leaders. While the laboratories and certain other facilities at the center are in excellent condition and provide invaluable research data, many of the greenhouses are outmoded, deteriorating and energy wasting. Because of their concern and knowledge, these industry leaders have called on their national trade association to ask this subcommittee for financial assistance.

SAF also feels that it would be wasteful to allow these excellent facilities to continue to deteriorate to the point where total reconstruction would be necessary.

We realize, too, that the full Appropriations Committee has granted $3 million in funds to the Agricultural Research Service for just this sort of renovation. However, at this time it has not yet been determined how the money would be spent. In addition, the research we are asking for would not be covered by these funds.

The research that the Department of Agriculture conducts in Beltsville is essential to the floral industry, as well as other agricultural industries. This research simply could not be conducted by industries like ours that are comprised of small businesses and family farms.

So, on behalf of the floral industry and, really, these other agricultural commodities, too, SAF is requesting $815,000. We are asking for $300,000 to renovate one greenhouse that specializes in research on plant diseases; $80,000 to renovate an outdated heating system in another research greenhouse; $135,000 to add nine new greenhouse units for entomology research; and an annual budget of $300,000 for continuing and badly needed research on an insect pest which is threatening to destroy the U.S. chrysanthemum crop, as well as do significant damage to such food crops as celery, lettuce, beans and tomatoes.

I would like to address each request individually:

The greenhouses at the Beltsville Agricultural Research Center that are occupied by the Florist and Nursery Crops Laboratory, were built in the late 1930s. The greenhouses are large commercial-type structures without adequate temperature control and no interior separation suitable for experimentation. With the exception of the heating system renovations in the 1970s, there has been no substantial modification to these structures since they were constructed.

In particular, these greenhouses are wasteful when it comes to energy. As you know, energy costs have increased significantly during the last several years. Because of the experimental work conducted in these greenhouses, there is a need for suitable environmental controls. The greenhouses at Beltsville were bar capped several years ago because the glass was slipping and large gaps had developed between many of the panes. It was not uncommon to find water leaking through the panes when it rained. Although the position of the glass was adjusted to minimize leaks, many of the sash bars are rotted and the glass support members continue to deteriorate.

In some attempt to make the greenhouses more energy efficient, a few thermal blankets were added and the roof structure of several houses was replaced with new sash bars. Also, widespan single panes of glass have replaced the old structures. These new structures have high heat losses, though.

The portion of the remodeling we are suggesting that relates to energy savings would more than pay for itself in eight to ten years.

In addition to increasing energy efficiency, the greenhouses must be separated into isolated cubicles for experimentation on plant diseases. Because these plant viruses are spread by physical contact and by insects, isolating this research is essential. SAF proposes that USDA begin modernization by renovating a 40 by 80 foot section of one greenhouse for $300,000.

Entomology research is conducted in another set of greenhouses which also needs to be updated. The existing complex has poor environmental control and keeping these insect experiments separate is difficult. Two expenditures would be necessary to update these facilities:

- The nine current greenhouses are heated separately with propane. This system needs to be replaced with centralized hot water heat at a cost of $80,000. And. . .

- Nine new commercially available greenhouses similar to the ones already built need to be purchased. Each is 17 by 23 feet and the total cost would be $135,000.

These cost estimates will provide adequate support for complete renovation of the entomology research facilities and will fund the initial phase of renovation for this second greenhouse complex.

Turning now to the needed research on the pest which I mentioned earlier, the serpentine leafminer is a major insect pest that has caused significant economic losses during the past 40 years. The insect attacks more than 100 plant species throughout the United States and many parts of the world. In one year, for example, leafminers caused nearly $17 million in damage to one state's chrysanthemum crop. U.S. growers can spend up to $1,400 an acre each year to protect their crops from leafminers.

As a matter of fact, our family's greenhouses used to grow chrysanthemums, but the leafminer infestation was so bad -- and costly to control -- that we no longer grow them.

To help you understand the seriousness of this problem, let me explain how the leafminer damages plants. The leafminer literally "mines"-- or feeds within the leaves. Mining significantly reduces plant growth and yield.

In tomatoes, for instance, mining leads to moisture loss, to leaf drop, to sun-scald of fruit, and in the final tally, to sharply reduced yields. In chrysanthemums, under even mild infestation, the quality of the product is reduced. Under heavy infestation, the entire crop is destroyed.

In addition, leafminers undoubtedly spread crop diseases from plant to plant.

The research funds we are asking for will be used to develop an understanding of the insect, and to determine why some plants seem to be able to resist the pest. It is possible to reduce crop losses by breeding resistance to leafminer, rather than resort to pesticides and other chemicals.

As you can see, basic biology programs and research to find insecticides to which the pest will not become resistant are sorely needed. They could be developed by USDA's Agricultural Research Service in cooperation with other researchers. To fund such a program would cost $300,000 per year on a continuing basis.

The Beltsville laboratory would require $200,000 and cooperating researchers would need $100,000. We believe this modest amount of funding, if provided on an annual basis, could make a major impact on developing a strong basic research program directed toward the long-term control of the leafminer.

Recognizing the high priority need for intensified leafminer research, the floral industry has sponsored three national conferences on the problem and contributed more than $110,000 to research. Support also has been provided by some states in this cooperative effort to supplement these grants.

The floral industry would like to do more, but, as I pointed out earlier, it is an industry of small businesses that cannot affort independent research. With the facility at Beltsville already geared to this sort of research, SAF asks this subcommittee to favorably consider our request for the necessary financial support to continue these vital efforts by the Department of Agriculture.

I appreciate this opportunity to appear before the subcommittee today, and I will try to answer any questions you might have.

Thank you.

BELTSVILLE GREENHOUSES

Mr. GUDE. The greenhouses at Beltsville are older, commercial type structures and are greatly in need of renovation. These charts show the cost, we feel, it would take to renovate them and make them viable as research greenhouses. There are problems when you are dealing with greenhouses of this type. They need to be zoned off from the experimentation to keep the various pests from being transferred from spot to spot by pests or employees. The heating system needs to be renovated. They are fuel-inefficient for their purpose. The industry as a whole has done quite a bit in the way of fuel conservation, but, unfortunately, you have to spend money to save money, and Beltsville has been unable to do so.

There is a need for small experimental greenhouses. They presently have some and need some new ones. These greenhouses are fairly expensive to put together, but the returns generally greatly exceed the investment.

LEAFMINER

The research figure of $300,000 is primarily to deal with the pest known as leafminer. Darryl will show you an example of what these pests can do, one example being beans and one being chrysanthemum. It mines the leaves. In essence, for agricultural crops, whether or not they are florist crops, it makes them basically unsalable, and in the case of food crops, primarily beans, celery, tomatoes, it greatly reduces the crop yield. In some of the plants, it completely destroys the plant and eliminates the commercial value of it at sale or the edible value of it for the individual gardener. These requested funds, therefore, can be used to cover a broad spectrum of the agricultural business, all the way from floriculture through edible agricultural crops.

The total amount of money we are asking for is $815,000. There is some money that has been designated for USDA's use at Beltsville, but none of it has specifically been geared toward the leafmining problem. In one case, this disease did over $17,000 worth of damage to floriculture alone.

That pretty well covers my remarks.

Senator COCHRAN. I think that there are facilities at Beltsville that are targeted for that construction and renovation. I know that in the jobs bill we recently passed, our committee here on the Senate side put some money in for construction at Beltsville, but in conference with the House and Senate, it was knocked out. Did that have any money in it that would have related to the request you are making, or do you know?

Mr. GUDE. I will have to go to Darryl.

Mr. MCEWEN. Yes; $3 million has been allocated, but we have not been able to determine, as yet, whether this $3 million will be used for any of the projects we are asking for. It is just a general ARS $3 million for renovation of facilities.

Senator COCHRAN. There are facilities at Beltsville other than those you are asking for.

Mr. MCEWEN. Yes; this is strictly the florist and nursery crops laboratory.

Senator COCHRAN. Has there been a request submitted by the administration for funds earmarking this?

Mr. MCEWEN. No.

Senator COCHRAN. Is it customarily earmarked between facilities out there or is it just usually generated for ARS facilities at Beltsville and then the Department suggests what the problem is?

Mr. MCEWEN. As I understand it, the Department makes some determinations, but when we questioned the people at the Beltsville facility about whether or not they could make some requests themselves, they were under the impression they really couldn't do that. That is why we have stepped in as a national trade association to do it ourselves.

Senator COCHRAN. We will take this up with them and also discuss it with the committee. Thank you very much for being here and for bringing this to our attention.

NATIONAL ASSOCIATION OF STATE FORESTERS

STATEMENT OF KENNETH G. STRATTON, SECRETARY-TREASURER

Senator COCHRAN. Our next witness is Mr. Kenneth Stratton, secretary-treasurer of the National Association of State Foresters.

Mr. STRATTON. Thank you, Mr. Chairman.

Mr. Chairman, I am director of the Maine Forest Service, but I am representing the 50 State foresters who do make up the National Association of State Foresters.

You have my prepared statement, so in the interest of time I will just try to give you a few highlights from that.

[The statement follows:]

STATEMENT OF KENNETH G. STRATTON

Senator Cochran, Members of the Committee, I am Kenneth G. Stratton, Director of the Maine Forest Service, and I am representing the interests and concerns of the National Association of State Foresters for the future of both the Forestry Incentives Program (FIP) and the Rural Community Fire Protection Program (RCFP). In speaking for the 50 State Foresters of this Nation, I want you to know that we appreciate past support by this Committee and the opportunity to appear and discuss the Forestry Incentives Program funded in the Agricultural Stabilization and Conservation Service budget and the Rural Community Fire Protection Program funded in the Farmers Home Administration budget.

Fiscal 1983 appropriations by this Committee for these programs totaled $15,750,000. For fiscal year 1984, the Administration proposed a zero budget for the Forestry Incentives Program and a zero budget for Rural Community Fire Protection. We recommend an appropriation of $17,000,000 for the two programs as shown below:

	FY 1983 APPROPRIATION	PRESIDENT'S BUDGET FY 1984	NASF RECOMMENDATION
FORESTRY INCENTIVES PROGRAM (FIP) (ASCS)	$12,500,000	- 0 -	$13,500,000
RURAL COMMUNITY FIRE PROTECTION (RCFP) (FmHA)	$ 3,250,000	- 0 -	$ 3,500,000
	$15,750,000	- 0 -	$17,000,000

FORESTRY INCENTIVES PROGRAM (FIP)

The FIP Program is administered by ASCS in consultation with the Forest Service and is executed by State Foresters. It provides cost-share incentives to small landowners for planting new stands and for improvement of present stands. At current funding levels, only a small percentage of the owners are being reached.

This highly successful program, a congressional initiative, is aimed at increasing timber production on private nonindustrial forest land to help meet the Nation's future needs for wood fiber. At present levels, it will provide 13% to 14% of the 21 billion board feet shortfall predicted to occur by 2030 if current levels of forest management are not improved. It is an important part of the total effort.

The Forestry Incentives Program (FIP) provides capital needed to attract investment in reforestation and timber stand improvement for timber production purposes. Studies show these investments to be earning an internal rate of 8% after inflation, and that eventually $2 will be returned to the Federal Government for each $1 invested now.

In 1982 FIP was funded as a separate program at $12.5 million. This funding resulted in 230,000 acres being treated. Over the past 5 years, this program accounted for approximately 34% of all reforestation on nonindustrial private lands. This effectively demonstrates the need for an incentive program.

We urge you to consider the following statements in making your decision on fiscal year 1984 budget levels:

-- The Forest Service 1979 RPA Assessment projects the demand for wood and paper products will double between 1976 and the year 2030. The report states that without major improvements in forest productivity, demand will exceed production of wood by 21 billion board feet annually.

-- Past production of lumber and plywood came mainly from the Nation's private timberland. The bulk of the remaining old growth softwood timber now is found on the national forests in the West. One theory being advanced is that increased cutting of the old growth timber on the national forests would:

1. Meet demands.
2. Provide increased revenues to the Treasury.
3. Provide the timber industry with a stable source of raw material.
4. Convert inefficient forests to efficient forests.

While this may solve some problems for the next 20-30 years, it completely ignores the long-term problems which start after the old growth is gone. The Forestry Incentives Program recognizes the need to put trees into the ground now and on a continuing basis.

-- 58% of the commercial forest land in the United States is in nonindustrial private ownerships. This land which today produces 36% of the softwood saw timber harvest annually will need to produce 50% by 2030. Forestry is a long-term program and it makes little sense to neglect this vast resource. It offers more than 50% of the opportunity to increase productivity.

-- Forestry is a long-term investment program facing many obstacles. Many landowners are harvesting their timber but are not making the necessary investments to reforest the area cut. High interest rates, long-term cash commitments and protection of plantation investments contribute to this impasse. Thus, millions of acres of highly productive land are being left idle.

-- Reforestation, protection and management needs on the nonindustrial private forests are staggering. With an estimated backlog of 10 million acres needing reforestation, it will take the combined efforts of industries, tax credits, incentives, technical assistance and cooperative programs to make a dent on the steadily increasing backlog.

RURAL COMMUNITY FIRE PROTECTION (RCFP)

One of the greatest needs of rural America is fire protection for rural homes, farmsteads, factories and other improvements. Title IV of the Rural Development Act of 1972 authorized Rural Community Fire Protection on a pilot basis. Now it is authorized by the Cooperative Forestry Assistance Act of 1978 to provide financial and technical assistance to train, organize and equip local, rural fire departments. The major emphasis of this program is to improve the existing levels of fire protection in rural areas where protection is lacking or nonexistent. Financial assistance is limited to not more than 50% of the actual expenditures. However, government help has amounted to less than 40% of the actual spending, while local fire departments have been supplying more than 60%. This is an indication of the success of the program in generating local fire resources.

The program is administered nationally by the Forest Service, though it is funded through the Farmers Home Administration (FmHA) under this Committee's jurisdiction. The Forest Service provides assistance to the State Forestry organizations which work with local fire departments. More than 90% of the funds are targeted to these departments. This is the only federal program specifically designed to provide technical and financial assistance in organizing, training and equipping fire departments in unincorporated rural areas. Requests for assistance exceed available funds by ten to one. 2,738 applications for financial assistance were approved in 1982.

Coupled with the Federal Excess Property Program, RCFP has been able to provide thousands of excess vehicles for use in rural areas. In some cases, RCFP funds provide a reconditioned vehicle and the community provides the fire pumper unit. In other cases the community provides the truck and RCFP funds provide the fire pumper unit. In 1981, over 12,000 volunteers were trained in fighting small structural fires and grass and brush fires. In 1982, this increased to over 29,000 firefighters trained.

This is a very effective and successful Program which is targeted at rural communities with less than 10,000 people. It not only provides additional fire protection, but provides a reservoir of trained volunteer firefighters and equipment for fighting forest fires in critical times.

Thank you for this opportunity to speak.

FORESTRY INCENTIVES PROGRAM

Mr. STRATTON. As you know, the administration has proposed that the fiscal year 1984 budget for the State and private forestry program be cut so much that all the grants to all the States for forestry programs would be eliminated. Among the programs which would be reduced to zero are the two I would like to briefly address. These are the forestry incentives program and the rural community fire protection program.

First, as far as FIP is concerned, as you know, this program is administered by the Agricultural Stabilization and Conservation Service together with the Forest Service. It is a cost-sharing program that is designed to encourage the owners of small woodlands to plant new stands of trees and improve the stands of trees already present. The important aspect of this particular program is that it is production oriented. It is a program that is applied on the tracts of forestland.

Program evaluation now shows that during the past 10 years of this program, the average size of treated woodland has gone up, and at the same time, the unit cost per tree has remained about the same in spite of inflation. We are now showing that this program is an effective one for small woodland owners.

Given that this Nation in the future will be relying on fiber from the non-Federal woods, programs such as the forestry incentives program need to be maintained.

Mr. Chairman, the National Association of State Foresters recommends that the 1984 funding level for FIP be set at $13.5 million, slightly over the amount for fiscal year 1983.

RURAL COMMUNITY FIRE PROTECTION PROGRAM

Relative to the rural community fire protection program, we are dealing here with a desirable program serving the small rural communities of this Nation. This program, which provides financial and technical assistance to train, organize, and equip local rural fire departments, has been enormously successful, judging by the fact that our requests exceed funds by 10 to 1. In this particular year, I have received requests from over 100 towns for upward of $350,000 worth of grants for funding activities in training, safety, clothing, and fire trucks. At the same time, I have had just $25,000 to give out; 37 of the 100 towns will receive assistance. I am sure the situation is the same in many other States.

The administration has proposed that the funding for this program go to zero in 1984, but the NASF is recommending $3.5 million, again slightly over fiscal year 1983.

The rural community fire protection program coupled with the surplus property program has been serving our small communities in their fire protection very well.

Mr. Chairman, the National Association of State Foresters appreciates the help you have given us in the past, and I appreciate your continuing to hear from us.

Senator COCHRAN. Thank you, Mr. Stratton. I share some of your concerns. As a matter of fact, when the administration representatives were here testifying in support of the President's budget request in these areas, we discussed quite thoroughly the concerns that I had and that you have expressed this morning, mainly that there is an immense backlog for participation in the forestry incentives program. It is a very popular program. In the Southeast, where I am more familiar with the constituents, I know how popular it is, and I hate to see us have to agree to this reduction without very careful consideration. With the consolidation of the forestry incentives program into the agricultural conservation program, I am afraid it will get lost in the shuffle and disappear.

Let me ask you this. One of the administration witnesses, I don't recall who, said that in practice the FIP program is a disincentive for reforestation by private landowners, because they do see the chance of qualifying for some Federal assistance in their efforts and that they wait and delay and don't do anything themselves unless they are totally satisfied they are just not going to be eligible or qualified to get Government help that year. So, a lot of things remain undone; whereas, if they had a clearer understanding about the limitations of funding and the unlikelihood that they would be provided assistance, they probably would go on and take on some of these measures on their own. What is your reaction to that?

Mr. STRATTON. I disagree with the administration's view completely. We can't keep up with requests for tree planting.

Senator COCHRAN. This is by private landowners at their expense?

Mr. STRATTON. Few of them can take on the full expense. Our experience has been that with what little funding we get, we can't keep up with the requests.

Senator COCHRAN. I know. That is not the point. The point is that if they knew they wouldn't get any help with reforestation efforts, if the program was not in existence, or if the understanding was that the limitation of funding was clearly inadequate, they would go on and do it themselves.

Mr. STRATTON. That has not been our experience at all. As funding levels have gone up and down, we have found the landowners have not been able to take on the full cost.

Senator COCHRAN. So the people don't do it just because it is too expensive, and the only way they are going to do it is with Government assistance?

Mr. STRATTON. That is correct.

Senator COCHRAN. Thank you very much for letting us have the benefit of your thoughts on this. We appreciate your patience, too, in waiting so long to testify today.

AMERICAN SOYBEAN ASSOCIATION

STATEMENT OF RALPH WEEMS, JR., FIRST VICE PRESIDENT

Senator COCHRAN. Next, we have the American Soybean Association, represented by its first vice president, Mr. Ralph Weems.

Welcome, Ralph. I am sorry you had to wait so long.

Incidentally, Senator Stennis wanted to be here for your testimony. In fact, one of the reasons he came over earlier today was to check and see when you were going to testify. As it turned out, he had another commitment to keep, and he asked me to express his regrets, but he likes you just the same.

Mr. WEEMS. Thank you very much, Mr. Chairman. Senator Stennis and you are both very good friends of mine, and I appreciate both of you.

I also appreciate the opportunity to come here today and express the views of the American Soybean Association. I assure you I will be as brief as possible.

SOYBEAN RESEARCH AND EXPORT PROGRAMS

The export of soybeans, soybean meal, and soybean oil represents 22 percent of the total American agricultural exports. As a full-time farmer, I want to remind you that soybean farmers are suffering from a severe farm depression. Even so, we are not here today seeking changes in the soybean farm program. Instead, I am here to discuss export and research programs that benefit farmers and consumers alike, provide a boost to soybean profitability, and build the base for agriculture's economic stability.

Agricultural economists say that world demand for U.S. soybeans could double over the next decade. U.S. soybean farmers can meet this dramatic demand increase only if we continue to support an aggressive research effort to increase nonfood uses for soybean oil, improved soybean production efficiency and reduced plant stress.

One of the major reasons for soybean prices being depressed today is the huge surpluses of vegetable oil in the United States. USDA predicts a 550,000-metric-ton carryover in the year 1983–84, far in excess of a normal carryover level. Each 1-cent-per-pound difference in the price of soybean oil translates into an 11-cent-per-bushel difference in the cash soybean price.

SOYBEAN OIL RESEARCH

Due to the inordinate impact that the price for soybean oil has on soybean prices, we recommend that Congress support basic and applied research on the use of soybean oil as a replacement for petroleum products.

The use of soybean oil as a carrier for pesticides on agricultural and forest lands is another exciting potential use. We urge you to encourage the use of soybean oil as a carrier of pesticides on Forest Service lands. We have discussed this proposal with USDA, and their response has been very encouraging.

As for funding, we recommend a shift in funding priorities from research on edible uses of soybean oil to aggressive support for nonfood soybean oil utilization.

We oppose the administration's proposal to eliminate $518,000 in CSRS special grants funding for soybean germplasm, plant stress, and cyst nematode research. It is a shame that Senator Eagleton isn't here, because that research is primarily conducted in Missouri.

We urge Congress to reinstate funds for other soybean programs. CSRS deserves the same funding increase, approximately 7 percent, as proposed by the administration for the ARS. We urge Congress to insure the final ARS staff and program priority reorganization does not detract from continued strong soybean research for basic soybean utilization and production.

MARKET DEVELOPMENT PROJECTS

The joint foreign market development program of the Foreign Agricultural Service and ASA represents an excellent example of public-private cooperation that benefits all Americans. Through the cooperation of FAS, soybean farmers have helped to almost double U.S. exports of soybeans and soybean products since 1970. ASA manages and coordinates more than 200 different market development programs in 76 countries. ASA's market development projects have created numerous success stories. One example is in Asia where our promotion of soymilk, a high-protein milk drink made from soybeans, has caused Asian soymilk consumption to soar. Soymilk consumption in Japan alone has jumped 200 percent from 1981 to 1982.

ASA supports the administration's 1984 budget proposal for the Foreign Agricultural Service and urges that funding for market development be established at least at the level requested by the administration.

PUBLIC LAW 480

ASA urges continuation and expansion of the USDA's highly successful blended credit program. To help the food-deficient nations—developing nations such as those in Africa, Latin America, and Southeast Asia—import more agricultural products, ASA recommends that the food-for-peace, Public Law 480, funds be increased. The total for title I and title III for Public Law 480 should be increased to $1.2 billion. Title II funding should be increased to a minimum of $850 million to expand the donation of soy-fortified foods to hungry populations. ASA urges the administration, through its various foreign aid programs, to relate U.S. commercial agricultural interests to our aid programs. Specifically, the Agency for International Development should actively implement this philosophy in their program as part of their operating philosophy.

ASA urges changes in the current cargo preference provision under the Public Law 480 program. In 1982, the cargo preference requirements added over $100 million to the cost of the Public Law 480 programs. This money could have been spent in additional export aid to these needy countries. We suggest that the rates charged by U.S.

shippers who ship bulk commodities under Public Law 480 not be allowed to exceed the rates for foreign shippers by more than 25 percent. We also urge the committee to make cargo preference reform a part of the 1984 appropriations bill.

We, as soybean producers, have not requested or received paid diversions, reserve deficiency payments, or target prices as have some of our other commodities in agriculture. ASA's efforts have been to stimulate foreign sales and through research accomplish efficient production. These, then, are the areas in which we ask your support. From our vantage point, it would appear our decision not to seek Treasury-draining support programs should increase the justification for granting us these modest appropriations at this time.

Senator, we thank you for the opportunity to present these views on the budget request, and I will be pleased to try to answer any questions you may have.

Senator COCHRAN. Thank you very much, Ralph. We appreciate your being here and the excellent statement you have made available to the committee.

In connection with the suggestion that you made about the U.S. Forest Service utilizing soybean oil in the spraying of pesticides, is there going to be substantial displacement of any other U.S. agricultural products if the Forest Service does utilize soybean oil?

Mr. WEEMS. The only thing I can think of that they might be displacing would be the use of water. This soybean oil would be used as a carrier for the pesticide that they spray to control the insects attacking the farms.

Senator COCHRAN. They don't now use any other kind of oil?

Mr. WEEMS. Some petroleum-based oil.

Senator COCHRAN. Well, we need to save that anyway.

You made a reference to cargo preference and urged the committee to make that a part of our appropriations bill this year. I don't think that is likely because we don't have jurisdiction in this area. That is authorizing legislation, not appropriation. We have to try to stick to dealing with numbers, but it might be brought up. If it is, we will have to consider and discuss it. I understand the problem. It is a serious one, and it could be difficult particularly for the people in the shipyards.

Mr. WEEMS. We understand that, and we wanted you to be aware of where we stand on this.

Senator COCHRAN. I understand that. It is a troublesome problem.

In connection with the wheat flour transaction with Egypt, we ended up making up in the transportation cost an extra donation of the wheat flour. That is an innovative way of handling that. It has been a way to deal with the problem in other commodity uses. Has any progress been made in using soybean oil in a similar transaction?

Mr. WEEMS. Not that we know of at this time.

Senator COCHRAN. I have written to the Secretary urging they consider doing that.

Mr. WEEMS. We understand that he has a couple of projects or areas where he might like to use it, but at this particular time, nothing has been done.

Senator COCHRAN. You have been very helpful to us. Thank you. We appreciate your being here very much.

Mr. WEEMS. Thank you.

[Mr. Weems' statement follows:]

STATEMENT OF RALPH WEEMS, JR.

HIGHLIGHTS: ASA'S FY 1984 USDA BUDGET PROPOSAL

Research:

1. Urge strong research emphasis to expand non-food uses of soybean oil. Proposals include a replacement for petroleum products and a carrier for herbicides and insecticides.
2. Reinstate $518,000 in special grants for germplasm and plant stress research proposed for elimination by the Administration. Continue $300,000 in special grants funding currently provided for cyst nematode research.
3. Provide aggressive federal funding for soybean bio-engineering and germplasm development, improved production efficiency, reduced plant stress, and a strong Extension Service.

Export Market Expansion:

1. Support the Administration's proposal to increase federal funding for the Foreign Agricultural Service, U.S. Department of Agriculture.
2. Stimulate U.S. soybean prices by increasing federal appropriations by $1.9 million for the development and enhancement of foreign markets for soybeans, soybean meal and soybean oil.
3. Reduce federal funding for cargo preference requirements under the P.L. 480, Food for Peace, program administered by the U.S. Department of Agriculture.

Mr. Chairman and distinguished members of the Subcommittee, my name is Ralph Weems. I am a farmer from West Point, Mississippi where I raise soybeans and wheat. As First Vice President of the American Soybean Association, I appreciate this opportunity to present ASA's comments on the Administration's FY 1984 budget request for the U.S. Department of Agriculture.

As I present my testimony, I'd like you to remember three points. First, ASA is a national, nonprofit volunteer, farmer-controlled single commodity association organized to build profits for soybean farmers. More than 450,000 farmers provide financial support for our export promotion, research and education projects through membership and voluntary investments in 23 state soybean checkoff programs. Second, soybeans emerged from near obscurity to become the top cash farm export for American farmers last year and one of the top three crops in harvested acreage. Total soybean production doubled from just over one billion bushels in 1970 to 2.3 billion bushels in 1982. Exports of soybeans, soybean meal and soybean oil represent 22% of total U.S. agricultural export value and 21% of total export volume. Soy complex exports are 4% of total U.S. exports. Last year, U.S. soybean farmers produced 65% of the world's soybeans -- and U.S. processors crushed 39% of world consumption. Third, as a full time farmer, I want to remind you soybean farmers are suffering from the severe farm depression. Even so, I am not here seeking tax-draining, costly changes in the soybean farm program. Instead, I am here to discuss export and research programs that benefit farmers and consumers alike, provide an immediate boost to soybean profitability, and build the base for agriculture's economic stability.

AGRICULTURAL RESEARCH NEEDS

Rapidly increasing acreage has characterized the recent supply side of the soybean equation. In the past 11 years, soybean acreage increased by one-third -- from 42 million acres in 1970 to 70.8 million in 1982. Many agricultural economists say world demand for U.S. soybeans will double over the next decade, provided foreign nations have adequate resources to purchase needed imports, and the U.S.continues to provide attractive export financing. U.S. soybean farmers can meet this dramatic demand increase only if we jointly continue to support an aggressive research effort to uphold soybean profitability through increased non-food uses for soybean oil, improved soybean production efficiency and reduced plant stress.

The federal investment in basic and applied soybean research should equal the nation's interest in maintaining a healthy soybean industry. Soybean farmers have invested $4 million of their own funds for soybean research projects. These grower funds, collected through the 23 state soybean checkoff programs, complement federal and state research programs. Most grower investments remain within the state to answer local needs; ASA uses the remainder to address national soybean priorities. These monies are used to expand research projects through better use of base federal and state base funds, and provide technical assistance, supplies and equipment. ASA strongly urges Congress to give strong emphasis to the following areas:

1. PRIMARY RESEARCH PROGRAMS TO EXPAND NON-FOOD USES OF SOYBEAN OIL: One major reason soybean prices are depressed is the huge surplus of vegetable oil in the U.S. USDA predicts a 550,000 mt carryover into MY 83/84, far in excess of normal carryover levels. Each 1¢ per pound difference in the price of soybean oil translates into an 11¢ per bushel difference in the cash soybean price. The current price for soybean oil is 17¢ per pound versus 25¢ per pound 32 months ago.

The traditional market for soybean oil is human consumption. However, soybean oil is an extremely versatile product, with a wide variety of potential non-food uses. Due to the inordinate impact the price (and demand) for soybean oil has on soybean prices, ASA recommends that Congress strongly support basic and applied research on the use of soybean oil as a replacement for petroleum products. Specific areas meriting attention are the use of soybean oil as a fuel and as a petrochemical base. For example, disoyl (mixture of soybean oil and diesel fuel) can be used as a diesel substitute, but the exact impact of different soybean oil/diesel mixture ratios on engine wear and emissions is still unclear. The use of soybean oil as a kerosene substitute in kerosene space heaters is another area where research is needed.

The use of soybean oil as a carrier for pesticides on agricultural and forest lands is another exciting potential market for U.S. soybean farmers. Pesticides are traditionally diluted with either petroleum-based oils or water or both for spray application. Initial research reports indicate that soybean oil can be used effectively as an more efficient carrier since it does not have petroleum oil's toxic effects on plant growth, provides more uniform plant coverage, and greatly reduces evaporation/rain wash-off. Another possible advantage of soybean oil is the reduction of application rates to only one to two quarts per acre, instead of several gallons per acre if pesticides are used with water, the most commonly used carrier today. This reduces the cost of aerial application. ASA urges Congress to encourage the use of soybean oil as a carrier of pesticides on Forest Service Lands. ASA has discussed this proposal with USDA and the response has been encouraging.

Funding: ASA recommends a shift in funding priorities from research on edible uses of soybean oil to aggressive support for non-food soybean oil utilization.

2. CSRS*/EXTENSION PROGRAMS - FUNDING: Soybean growers maintain strong local contact with state experiment stations, partially funded by CSRS and farmer checkoff funds. This provides vital regional research into local problems in areas of plant stress, plant disease, as well as development of soybean germplasm and increased production efficiency.

CSRS Special grants: ASA is deeply concerned with the Administration's proposal to eliminate the important CSRS support for soybean germplasm and plant stress research provided under the FY 1983 special grants program. We urge that the $518,000 targeted for elimination be reinstated for these two key areas. The Administration also zeroed out $300,000 in FY 1983 special grants funding used for cyst nematode research. We urge Congress to reinstate these funds and to continue aggressive cyst nematode research, which is crucial to minimize plant stress.

Additional plant stress research needs best addressed by CSRS include an ongoing examination of other plant diseases and moisture tolerance. For example, a new soybean-specific disease -- stem canker -- has developed which threatens soybean production by cutting off stem circulation. ASA also urges continued emphasis on bio-engineering research to improve soybean varieties by developing basic information on plant physiology to be used in genetic engineering.

Improved soybean production efficiency represents an especially important way to improve soybean farmer profit potential by reducing per acre production costs. CSRS-funded research should be tailored to solve regional needs. An outstanding example of the results from the use of CSRS and soybean checkoff funds is a joint Iowa research program which developed soybean genetic resistance to iron chorosis, an iron deficiency disease.

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*Cooperative State Research Service

The Extension Service plays an important role in responding to local soybean production problems by disseminating federal/state research results and maintaining direct farmer contact. ASA supports a strong Extension Service in commercial agriculture. In addition, we encourage Congress to provide sufficient funds to continue federal Extension emphasis on production techniques to control soil and water erosion. ASA has worked closely with the Extension Service to develop joint farmer education programs. Examples include 1982 ASA-Extension Grower Workshops on Solid Seeding and other seminars which presented an unbiased evaluation of applied production research. The Extension Service also works with soybean farmers to conduct valuable on-farm research projects/test plots to examine practical farming needs.

FUNDING: CSRS and the Extension Service deserve a similar program funding increase -- about 7% -- as proposed by the Administration for ARS in FY 1984. Additional CSRS/Extension appropriations should be distributed evenly across programs. ASA supports continued emphasis on competitive grants for production efficiency, plant stress, bio-engineering and germplasm research programs. We also urge that federal agricultural research grants only be allowed to universities and institutions that have the expertise and facilities to conduct agricultural research and extend new-found knowledge to farm application.

3. ARS* PROGRAMS, FUNDING, REORGANIZATION: We urge Congress to ensure that the final ARS staff and program priority reorganization does not detract from continued strong research on basic soybean utilization and production. ASA supports the Administration's proposed FY 1984 ARS funding emphasis. We urge Congress to earmark funding increases which implement the ARS funding priorities established by the ASA-ARS Soybean Utilization Workshop held at Peoria, Illinois in May, 1982.

A Virginia Polytechnic Institute analysis shows that each dollar invested in agricultural research yields a 176% return. How many other U.S. government-funded programs can boast such a remarkable return on our tax dollar investment? As mentioned earlier, U.S. soybean farmers have demonstrated their commitment to soybean research with a $4 million investment of their own money. ASA urges Congress to make a similar commitment to agricultural research.

EXPORT MARKET DEVELOPMENT NEEDS

Agricultural exports pay huge dividends. They create millions of farm and nonfarm jobs. They increase the value of the dollar. They reduce our balance of trade deficit. They generate tax revenues to the U.S. Treasury. The joint foreign market development program of USDA's Foreign Agricultural Service and the American Soybean Association represents an excellent example of public-private cooperation that benefits all Americans. Through cooperation with FAS, soybean farmers have helped to almost double U.S. exports of soybeans and soybean products since 1970. During the last decade, exports of soybeans and products have totaled $54.8 billion.

In fiscal year 1983, FAS funds for soybean market development overseas totalled $4.17 million. During that same year, soybean farmers invested almost $5 million of their own checkoff funds to help increase U.S. soybean sales abroad. Third party trade and industry support provided almost $6 million.

A Chase Econometrics study documents the FAS/ASA success. The Chase study shows that farmer-funded export promotion has increased soybean prices 8 cents per bushel each year for the last 11 years. Chase also found that ASA's export promotion increased gross soybean cash receipts to U.S. farmers $57.50 per dollar invested overseas. Our present economic crisis in agriculture could be worse if market promotion programs had not occurred during the decade of the 70's.

The American Soybean Association coordinates and manages more than 200 market development projects in 76 countries. Our overseas staff of international marketing experts, livestock nutritionists and other specialists are based in 10 international locations: Tokyo, Singapore, Brussels, Hamburg, Vienna, Mexico City, Madrid, Seoul, Taipei, and our newest office in Beijing, China. Since 1957, ASA has sent more than 220 highly trained animal nutritionists, veterinarians and other experts to almost 80 countries. Altogether, ASA has coordinated and sponsored almost 500 technical missions to help foreign customers improve livestock and processing industries. Since 1966, ASA has helped sponsor 315 foreign trade teams to the U.S. to study and observe firsthand, through seminars and tours, the advantages and applications of soybeans.

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*Agricultural Research Service

ASA's market development projects have created numerous success stories. Intense ASA promotion in Asia of soymilk, a high-protein drink made from soybeans, has caused Asian soymilk consumption to soar. Soymilk consumption in Japan alone jumped 200 percent from 1981 to 1982. ASA crushing trials in Venezuela and Chile showed that existing crushing plants could easily be converted to soybean processing and has sparked Latin American buying interest in U.S. soybeans. An ASA poultry workshop in Egypt helped Egyptian veterinarians better understand disease prevention, thereby increasing broiler production and upping the demand for U.S. soybean meal. (See attached enclosures for more details.)

But more work needs to be done. The developing nations in Africa, Latin America and Southeast Asia offer exciting possibilities for agricultural exports. Before we expand these markets, however, programs to improve internal transportation systems, port capacity and basic agricultural methods must be developed and funded. The huge and hungry populations of the Indian subcontinent require equally huge amounts of food. But in the past, other agricultural exporters have captured these markets because of more extensive export promotion.

1. NEED FOR FUNDING. The American Soybean Association supports the administration's 1984 budget proposal for the Foreign Agricultural Service and urges that funding for market development be established at least at the level requested by the administration.

2. EXPORT CREDIT ASSISTANCE. Foreign buyers, especially those in developing nations, need help. Strong agricultural export financing programs are essential to the future profitability of American agriculture.

ASA urges continuation and expansion of USDA's highly successful "blended credit" program offered in 1982 and 1983. ASA strongly recommends that Congress appropriate and require the administration to expend in FY'84 at least $2 billion for the CCC Export Credit Revolving Fund established by the Agriculture and Food Act of 1981. Loans made from the revolving fund would be made at interest rates in excess of the borrowing cost to the Commodity Credit Corporation and repayments would be reverted back to the revolving fund for future use. Thus, the fund would increase as interest and principal payments are made and the fund would not result in a net cost to the federal government. A revolving fund would be an investment in the future. It would save millions of dollars in net outlays created through lost U.S. farm income.

To help food-deficient developing nations such as those in Africa, Latin America and Southeast Asia import greater amounts of agricultural commodities more efficiently, and increase utilization of U.S. ag products, ASA recommends that the "Food for Peace" Program (P.L. 480) funds be increased. Funds for Titles I & III of P.L. 480 should be increased to $1.2 billion to allow additional export shipments to needy countries. Title II funding should be increased to a minimum of $850 million to expand the donations of soy-fortified foods to nutrition-hungry populations. These increased funding levels include the additional $500 million recommended for P.L. 480 by the House Agriculture and Budget Committees over the Administration's FY'84 funding recommendation.

3. AID AND TRADE. ASA urges the Administration through its various foreign aid programs to relate U.S. commercial agricultural interests to our aid programs. Specifically, the Agency for International Development should actively implement this philosophy in their programs as a part of their operating philosophy.

4. CARGO PREFERENCE. ASA urges changes in the current cargo preference provision under the P.L. 480 programs, the requirement that at least 50 percent of P.L. 480 shipments be carried by U.S. vessels. In 1982, the cargo preference requirements added over $100 million to the cost of the P.L. 480 programs. This money could have been spent in additional export aid to needy countries. ASA suggests that rates charged by U.S. shippers who ship bulk commodities under P.L. 480 not be allowed to exceed the rates for foreign shippers by more than 25 percent. Currently, U.S. shipping rates can be as much as 150 percent higher than foreign flag ships.

The facts are clear that cargo preference has not achieved its objective. The U.S.-flag bulk fleet, only 23 ships, averages 20 years of age and provides service so poor USDA frequently receives complaints from overseas buyers about U.S. flag vessels. The subsidy provided by cargo preference amounts to almost $100,000 per seaman. If the U.S.-flag merchant marine is needed during wartime, the President has full authority to call into service the over 600 U.S.-owned, but foreign registered vessels currently in service.

We urge the committee to make cargo preference reform a part of its 1984 appropriations bill.

CONCLUSIONS

U.S. soybean farmers recognize they are requesting aggressive federal funding for soybean research and export market development at a time when major federal programs are faced with severe budget reductions. Rather than requesting short-term, tax-draining federal support programs, ASA seeks federal support which will help provide a solid base to revitalize U.S. agriculture, and offer bright potential for increased tax revenues, increased jobs and higher farm profits. Failure to invest relatively modest amounts of federal dollars in soybean research and foreign market expansion will ultimately require huge amounts of tax dollars in future farm support programs. We need your investment, not handouts. The best way to avoid the devastating effects of low prices is to invest in our future. Thank you for this opportunity to present our views on the FY 1984 federal budget for the U.S. Department of Agriculture.

U.S. AGRICULTURAL EXPORT DEVELOPMENT COUNCIL

STATEMENT OF HAROLD WEETH, CHAIRMAN OF THE BOARD, COTTON COUNCIL INTERNATIONAL, REPRESENTING U.S. AGRICULTURAL EXPORT DEVELOPMENT COUNCIL

ACCOMPANIED BY:

NELSON DENLINGER, EXECUTIVE VICE PRESIDENT, U.S. WHEAT ASSOCIATES, INC.

KEN STEPHENS, DIRECTOR OF TRADE SERVICING, U.S. FEED GRAINS COUNCIL

Senator COCHRAN. Our next and final group represents the U.S. Agricultural Export Development Council. We have Mr. Harold Weeth, a cotton producer and chairman of the board of Cotton Council International; Mr. Nelson Denlinger, executive vice president, U.S. Wheat Associates; and Mr. Ken Stephens, director of trade servicing, U.S. Feed Grains Council.

We are delighted to have you with us this morning and apologize to you, as I have to others who have had to wait so long. We got behind early.

Mr. WEETH. Mr. Chairman, I feel I should apologize to you for even being here to interrupt your program. However, it is a distinction for a California cotton farmer to sit in such a prestigious audience and give testimony before you. I certainly appreciate it and appreciate your patience and your willingness to have us.

Senator COCHRAN. Thank you.

Mr. WEETH. Mr. Chairman and distinguished members of the subcommittee, my name is Harold Weeth. I am a cotton producer from Coalinga, Calif., and also serve as chairman of the board of Cotton Council International.

I would like to introduce Nelson Denlinger of the U.S. Wheat Associates and Ken Stephens of the U.S. Feed Grains Council, who are here to answer any questions. Let me add, they take the tough ones. If you want to know what the weather is like in California, I can answer that.

I am here on behalf of the U.S. Agricultural Export Development Council, better known as the cooperators, and a glance at the letterhead on which our testimony is printed will show you that a really wide range of agricultural production, from animals to flour to food, is reflected in the membership.

FOREIGN MARKET DEVELOPMENT

We know that this committee has been supportive in the past, and we also want you to know we appreciate your support for our efforts to develop and maintain foreign markets for U.S. farm production. This year, the Foreign Agricultural Service has requested an additional $4.3 million in additional market development funds, an amount to be matched by cooperator funds in the unique partnership program that has evolved over the years.

In spite of the fact that U.S. farm export values plunged last year—a drop of 11 percent for the first time in 13 years—and in spite of all the problems besetting our members—the farmers and producers—we find they realize that now is no time to reduce our efforts. Our written testimony includes a lot of detail on credit, particularly the need for more short and intermediate term direct credit. The recently established blended credit program recognized the need for competitive credit rates in a weak export market. The uncertainty of whether the recent decline in credit rates will continue and whether blended credit will still be available, makes direct export credit a very important part of our market development efforts.

EXPORT CREDIT REVOLVING FUND

We are here today to urge most strongly that you give careful consideration to the benefits of funding a revolving fund for both short and intermediate term direct export credit. Congress recognized the necessity for a revolving fund when it was authorized in the 1981 farm bill. The concept has wide support among all sectors of agriculture. There is the belief, however, that the Commodity Credit Corporation's borrowing authority already constitutes a revolving fund. However, the borrowing authority of the CCC serves only as a revolving fund for domestic operations. In the past, interest income from export credit has always been repaid to the Treasury. The amounts repaid ranged from $1 billion to $1.6 billion annually, and we have not had defaults on direct credit.

We are today requesting that your subcommittee appropriate $2 billion as startup funding for a direct credit revolving fund. As an alternative, we are also suggesting that the fund can be established by utilizing CCC-owned stocks to provide seed money for the fund. We seek a specific mandate from Congress to start and operate a credit fund which is well overdue.

With surplus commodity stocks and strong competition from other exporters, members of the U.S. Agricultural Export Development Council recognize they must try even harder to find new markets and expand present markets. Years of serious market development work have been undone by trade restrictions, but there are hopeful signs that the U.S. economy has begun to turn around, and this should encourage recovery elsewhere. The heavy debt load of many countries will temper their recovery, again a reason why the United States needs to be flexible on its credit offerings for agricultural exports.

The U.S. Agricultural Export Development Council set a goal of $75 billion in exports by 1985. Now, we are going to need a little help, more than a little luck, and a whole lot of hard work to attain that goal, but we certainly are going to make an effort.

Mr. Chairman, if you have any questions, we will do our best to answer them.

Senator COCHRAN. Thank you very much, Mr. Weeth.

When you were discussing that revolving fund, I was sitting here remembering the conversations we had in conference with the House this past year when this committee did approve, at Senator Eagleton's suggestion, a specific amount of money for a revolving fund. You pointed out in your statement why the argument against it was made. I don't know what the likelihood is of the committee putting money in for the revolving fund. I have been convinced in the past it would be a good idea, having committed myself to the revolving fund a few years ago. I think it would give us an extra dimension of alternatives that would enable us to finance some of these sales abroad and reclaim some lost markets and perhaps get us into some new markets, which would be the most important contribution we could make. I think exports of agricultural products may be one of the most important endeavors that Government has the responsibility of working with the private sector to achieve.

We know it is a job-producing activity. We worry about our high rate of unemployment now. I don't remember where I heard these figures, but I have heard that for every $1 billion in agricultural exports, we create 26,000 jobs here at home. That is a very impressive figure. For manufacturing, I am told it is somewhat higher, something like 40,000 jobs. Nonetheless, it is illustrative to U.S. citizens who may not even be directly involved in agriculture, and we, of course, all understand what it means to market prices. It helps strengthen prices and keeps farmers enjoying the opportunity to operate at a profit, which is certainly something we need right now.

I am sympathetic to the efforts you are making, and I congratulate all of you for the work you are doing.

In the market development effort, we have authorized, under the Foreign Agricultural Service, the location of offices around the world. What is your impression about the benefit of this investment by having the Government work with our cooperators around the world developing markets and maintaining our share of all the markets? Is that worth the investment we are making?

Mr. WEETH. Mr. Chairman, from my traveling around the world, it has been a great pleasure for me to visit with FAS representatives in all of the countries, and they have been most helpful. It is my opinion as a producer that they are of great benefit to the industry and that the investment is well spent. I certainly want to congratulate you and urge you to maintain your stance in support of export marketing.

Senator COCHRAN. Well, I think it is important for us to work toward better ways to improve our efforts to get this job done. I think that what happened in many export and development activities was that we had been at it for such a short period of time compared to other countries. We had vast markets in the United States, but we never really paid attention to what you had to do in order to compete in overseas commerce. In agriculture, we have known about it for a long time, at least in the South we knew about it, but I think we need to catch up and spend a lot more effort and some more money.

I think that working on blended credit transactions has proven to be very helpful to the effort, and there are probably other initiatives as well. We have an Export Equity Act recently reported by the Senate Agriculture Committee that is pending on the calendar of the Senate. The reason I mentioned credit was that we are probably going to see a credit bill attached to it as an amendment. It has also been loaded down with extraneous matter that may keep it from being taken up at a later day. Some of the initiative contained in the bill is important. The export credit idea, for instance, is one that I claim credit for, whether justly or not. I hope we can implement that, as well as some other new initiatives.

I think this committee has been pleased that the administration has, over the last couple years, requested increases in funding for the Foreign Agricultural Service and for some of our export promotion activities. That is not to say that we can't do better. We will be trying, in every way we can, to make sure that part of the budget gets fair treatment.

Thank you for being here and contributing to the hearing.

[Mr. Weeth's statement follows:]

STATEMENT OF HAROLD WEETH

Mr. Chairman and distinguished members of the Subcommittee, my name is Harold Weeth. I am a cotton producer from Coalinga, California, and I also serve as Chairman of the Board of Cotton Council International.

I am accompanied by Nelson Denlinger of U.S. Wheat Associates, Inc., and Ken Stephens of the U.S. Feed Grains Council, and I am here on behalf of the U.S. Agricultural Export Development Council. This Council represents 56 organizations that include not only the traditional agricultural commodities, but also lesser known ones such as forest products, nursery products and processed products. All these organizations work with USDA's Foreign Agricultural Service to develop, expand and maintain foreign markets for U.S. agricultural production.

In the past this Subcommittee has supported our objectives. Today I will list only a few of the reasons for the importance of agricultural exports to the farm economy.

- The efficiency of our agricultural sector has increased rapidly in recent years, providing a solid foundation for our agricultural export markets.
- Every billion dollars of agricultural trade generates an additional billion dollars of activity in the U.S. economy. That translates into 35,000 jobs for each additional billion dollars of exports.
- The American farmer looks to export sales for about one in every three acres harvested.
- There are numerous examples of cooperation between government and the private sector but the Cooperator program - with its close producer and FAS ties - is a model of efficiency with good results in increasing agricultural exports.

We genuinely appreciate that this Subcommittee has been responsive and supportive in the face of budgetary constraints in the past. We wish to encourage support of the Foreign Agricultural Service's budget request which includes $4.3 million in additional market development funds for Fiscal Year 1984 — an amount to be matched by Cooperator funds.

Outlook

For the first time in thirteen years, U.S. farm exports dropped in the fiscal year ending September 1982. Value plunged 11 percent to just under 40 billion dollars. The margin of our agricultural trade surplus fell by nearly three billion dollars to less than 24 billion. The main reasons are the world-wide recession, financial instability in a number of countries, the strong U.S. dollar, losses due to the Soviet embargo, the gas pipeline controversy, continued East-West tensions, unfair trade practices by some of our competitors and the restrictive market actions by some of our customers.

We hope you will read the attached booklet, "Developing and Maintaining Foreign Markets for U.S. Farm Products --- Activities 1982". You will find that Council members did their utmost to overcome this bleak period.

Because we realize that it is imperative that all funds are put to the best possible use, we have worked closely with FAS to develop an improved market planning system. One of the key components is the calculation of benefit/cost ratios to help allocate resources to those markets and programs which offer the best potential use for U.S. export expansion per dollar expended on market development activities.

While we recognize that projected export sales estimates are largely based on informed personal judgement -- due to the lack of good information on the quantitative impact of foreign market development activites in export sales -- the principle is sound. At the present time we are developing methods and techniques to improve market assessment, market development forward planning, and assessment of the effectiveness of market expansion efforts.

We hope that the results of the evaluation will be useful in improving and judging the accuracy of future planning efforts.

Credit

Without credit, few of our foreign customers can import all they need to feed their people. Banks involved in international operations are quicker to finance industrial goods than farm commodities. As collateral, farm commodities have a short life span. Moreover, banks provide credit for only 90 to 180 days. Many buyers need credits for one to three years. And, unlike government financing, banks do not restrict financing to purchases of U.S. farm commodities.

From 1955 to 1980, USDA offered direct credits to maximize exports and maintain our share of foreign markets. Exports went up as a result. There were few losses on bad debts and the proceeds were returned to the U.S. Treasury. Since 1980 and until the fall of 1982, all commercial financing has been provided under the Loan Guarantee Program (GSM-102.) U.S. banks provided the funds and set the interest rates. USDA guaranteed that the banks would be repaid. When U.S. rates escalated, foreign buyers increasingly opted for other credit sources -- U.S. farmers' competitors.

From 1980 until recently, the United States had nothing to offer in the way of credits for agricultural exports except GSM-102, with its very high interest rates, and limited amounts of P.L. 480, primarily for needy countries.

The recently established blended credit program gives recognition to the need for competitive credit rates in the face of a weak export market and a large commodity surplus. The program provides credit to yield a blended credit interest rate competitive with foreign rates. Recently, U.S. interest rates have declined, but it is uncertain whether this trend will continue or if blended credit will continue to be available.

Export Credit Revolving Fund

There is a strong need for start-up funds for an export credit revolving fund and the benefits of such funding should be weighed against the export incentives being considered under other programs.
You will no doubt recall that Congress authorized a revolving fund for export credits in the 1981 Farm Bill. Appropriations later provided were not for this purpose but for credit, which USDA incorporated into the blended credit program.

The revolving fund concept has won the support of Cooperators and business leaders in the agricultural complex. Many approve of the revolving fund, but believe that the borrowing authority of the Commodity Credit Corporation already constitutes a revolving fund. We wish to point out, however, that the borrowing authority of the CCC serves only as a revolving fund for domestic operations. Though it keeps records on export credit programs it can exercise no control and has no say on the amounts which can be used for export financing. The excess in repayments over amounts used for financing have, in the past, ranged from $1 billion to $1.6 billion per year, and it has always been repaid into the Treasury.

For these reasons we urge this Subcommittee to give careful consideration to the benefits of funding an export credit revolving fund. The Council urges this Subcommittee to provide at least $2 billion in 1984 to finance a revolving fund to promote the commercial sales of American farm products in overseas markets.

Another method of establishing the fund would be to utilize CCC-owned stocks to provide seed money for the export credit revolving fund. Government-owned grain could be provided to foreign buyers on credit to finance construction of needed storage, bulk-handling and other facilities which would increase the import potential of the country. Repayment proceeds could then go into a USDA-controlled revolving fund to finance U.S. exports in future years. Under this arrangement, export credit programs could operate for years to come.

As you know, the Agricultural Trade Act of 1978 authorized Intermediate Credit to encourage the export of breeding livestock and for construction and improvement of the market development facilities discussed above. These needs exist today, and any action to meet our export credit needs should not overlook the benefit of Intermediate Credit for longer-term market development opportunities.

All we really seek is a specific mandate from Congress -- to start and operate a credit fund which has for years been a necessity.

P.L. 480

To help food-deficient developing nations such as those in Africa, Latin America and Southeast Asia import greater amounts of commodities than they would otherwise be able to afford, and increase utilization of U.S. agricultural products, this Council recommends that P.L. 480 funds be increased as follows:

> Titles I and III should be increased to at least $1.2 billion, and Title II funding should be increased to at least $850 million.

The total $2.050 billion should allow additional export shipments to needy countries and provide nutritious foods to hungry populations. In the past P.L. 480 has been an excellent way of establishing markets, and the higher Title II program level will assist in moving higher value processed products.

The increased funding levels include the additional $500 million recommended for P.L. 480 by the House Agriculture and Foreign Affairs Committees over the Administration's FY 1984 funding recommendation.

Background and Statistical Information

We have attached statistical information on the costs of foreign market development for your information. The tables indicate that the United States provides only modest funding in comparison with other countries when considering the volume of U.S. commodities involved. We believe that the partnership that has evolved between the Foreign Agricultural Service of the U.S. Department of Agriculture and the Cooperators is a unique one that has brought outstanding results.

There are some hopeful signs that the U.S. economy has begun to turn upward, and this should be a helpful engine to encourage recovery elsewhere. The recovery will likely be tempered by the heavy debt load facing many countries, and this is another reason why the United States needs to show flexibility on its credit offerings for agricultural exports.

You are well aware of the heavy price paid by farmers when embargoes or other trade restrictions are enacted. Such moves can undo years of serious market development work. We are optimistic that the administration will soon begin to negotiate a new long term grains agreement with the USSR, and that accord will also be reached with the PRC on a new textile agreement. It is of the utmost importance that we establish good communication and enhance our relationship with our customers.

The Future

In spite of the current problems, we believe that agricultural exports can continue to play an important role in restoring prosperity to U.S. agriculture and our rural sector. The U.S. Agricultural Export Development Council meeting in Easton, Maryland in November 1982, adopted as a goal reaching the target of $75 billion in agricultural exports by 1985.

With this Subcommittee's support and anticipated improved economic conditions world-wide, we believe we can meet that goal.

I will attempt to answer any questions you may have or furnish additional material for the record if needed.

Thank you for the opportunity to testify.

HISTORICAL SUMMARY
VALUE OF U.S. FOREIGN TRADE AND TRADE BALANCE

FISCAL YEARS 1970 - 1982

	U.S. EXPORTS				U.S. IMPORTS				TRADE BALANCE		
FISCAL YEAR	AGRICULTURAL	NON-AGRICULTURAL	TOTAL	% AGRICULTURAL OF TOTAL	AGRICULTURAL	NON-AGRICULTURAL	TOTAL	% AGRICULTURAL OF TOTAL	AGRICULTURAL	NON-AGRICULTURAL	TOTAL
	million dollars			%	million dollars			%	million dollars		
1970	6,958	34,337	41,295	17	5,686	33,379	39,065	15	+1,272	+958	+2,230
1971	7,955	35,928	43,883	18	6,128	38,744	44,872	14	+1,827	-2,816	-989
1972	8,242	36,633	44,875	18	5,936	45,926	51,862	14	+2,306	-9,293	-6,987
1973	14,984	47,759	62,743	24	7,737	57,521	65,258	12	+7,247	-9,672	-2,515
1974	21,559	69,423	90,982	24	10,031	81,995	92,026	11	+11,528	-12,572	-1,044
1975	21,817	83,178	104,995	21	9,435	89,251	98,686	10	+12,382	-6,073	+6,309
1976	22,742	89,047	111,789	20	10,492	103,743	114,235	9	+12,250	-14,696	-2,446
1977	23,974	95,144	119,118	20	13,357	129,061	142,418	9	+10,617	-33,917	-23,300
1978	27,289	104,270	131,559	21	13,886	152,095	165,981	8	+13,403	-47,825	-34,422
1979	31,979	135,639	167,618	19	16,186	177,424	193,610	8	+15,793	-41,785	-25,992
1980	40,481	169,753	210,234	19	17,276	219,305	236,581	7	+23,205	-49,552	-26,347
1981	43,788	185,415	229,203	19	17,218	237,469	254,687	7	+26,570	-52,054	-25,484
1982	39,094	176,311	215,405	18	15,346	233,488	248,634	6	+23,748	-57,177	-33,429

SOURCE: 1970-1981 USDA, ERS. U.S. Foreign Ag. Trade Statistical Report Fiscal Year 1981, Page 1.
1981-1982 USDA/FAS U.S. Foreign Ag. Trade FATUS, NOV./DEC., 1982

FISCAL YEAR EXPENDITURES OF FEDERAL FUNDS AND COOPERATOR CONTRIBUTIONS AND TOTAL AGRICULTURAL EXPORTS

	(1) FEDERAL FUNDS	(2)	(3)	(4)	(5)	(6) FUNDS DISTRIBUTION	(7)	(8)	(9) MARKET DEVELOPMENT COST	(10)
FISCAL YEAR	PROJECTS	FAS	TOTAL	COOPERATOR FUNDS	TOTAL FUNDS	FEDERAL	COOPERATOR	AGRICULTURAL EXPORTS	FEDERAL	COOPERATOR
	- - - - - - - - -	- - - - -	$1,000 - - -	- - - - - -	- - - - -	- - - -% of	TOTAL - - - -	- $ Million -	- - % of Export	Value -
1971	8,847	858	13,705	18,613	32,315	42	58	7,955	.11	.23
1972	10,054	1,730	11,874	20,605	32,389	36	64	8,242	.12	.25
1973	10,045	930	10,975	22,112	33,087	33	67	14,984	.07	.15
1974	10,234	658	10,892	23,342	34,234	32	68	21,559	.05	.11
*1975	11,739	830	12,659	26,997	39,566	32	68	21,817	.05	.12
1976	10,922	796	11,718	24,158	35,876	33	67	22,742	.05	.11
1977	11,719	798	12,517	29,420	41,937	30	70	23,974	.05	.12
1978	13,926	879	14,805	35,331	50,136	30	70	27,289	.05	.13
1979	16,709	963	17,672	39,660	57,332	30	70	31,979	.05	.12
1980	18,778	1,165	19,943	46,373	67,316	30	70	40,481	.05	.12
1981	20,195	1,014	21,209	51,502	72,711	29	71	43,788	.05	.12
1982	20,641	878	21,519	57,868 Est.	79,387	27	73	39,094	.06	.15

* Covers 15 month period

FOOTNOTES:

(1) FAS Expenditures for Cooperator Projects
(2) FAS expenditures for own projects
(3) Column (1) + (2)
(4) Cooperator expenditures from own and related funds including foreign
(5) Total expenditures for foreign market development
(6) & (7) Share of total expenditures by source
(8) Value of total U.S. exports of agricultural commodities
(9) & (10) Market development costs as percent of value of total exports
(11) If forest products are included 1982 agricultural exports would total $41.9 billion, and the Federal and cooperator market development costs would be .05 and .14 percent, respectively.

Source: USA/FAS/CMP/PED

USDA AND COOPERATOR MARKET DEVELOPMENT EXPENDITURES EXPRESSED AS A PERCENTAGE OF TOTAL AGRICULTURAL EXPORTS.

FISCAL YEARS 1971-1982.

FISCAL YEAR	EXPORTS ($ billions)	MARKET DEVELOPMENT 1/ ($ thousands)	% OF EXPORTS
1971	8.0	20,569	0.26
1972	8.2	18,785	0.23
1973	15.0	18,536	0.12
1974	21.6	18,600	0.09
1975	21.8	22,656	0.10
1976	22.7	21,593	0.10
1977	24.0	25,069	0.10
1978	27.3	30,000	0.11
1979	32.0	33,935	0.11
1980	40.5	39,748	0.10
1981	43.8	42,344	0.10
1982 (ESTIMATE)	39.1	47,587	0.12

1/ Excludes Foreign Third Party Contributions

Note Inclusion of Forest Products changes the 1982 estimates to 41.9, 47,587 and 0.11.

SOURCE : USDA/FAS/PED

IV.

EFFECT OF INFLATION AND CURRENCY FLUCTUATIONS ON FOREIGN MARKET DEVELOPMENT FUNDS : 1971/83 1/

FISCAL YEAR	FAS SIGN-UP AUTHORITY ($ thousands)	WEIGHTED INFLATION RATE (Percent) 2/	WEIGHTED CURRENCY ADJUSTMENT (Percent) 3/	SIGN-UP AUTHORITY PURCHASING POWER IN 1971 DOLLARS ($ thousands)
1971	$ 12,521	5.9	0.9	$ 12,521
1972	12,397	5.4	9.4	10,063
1973	12,500	8.7	9.1	8,562
1974	13,000	16.4	(0.5)	7,879
1975	11,736	11.8	2.5	6,053
1976	12,115	8.7	(5.1)	6,039
1977	14,067	8.1	2.6	6,325
1978	15,646	5.8	16.1	5,727
1979	20,806	8.6	(0.1)	7,015
1980	20,199	11.7	(0.9)	6,156
1981	23,673	10.1	(8.4)	7,103
1982	28,159	9.4	(7.7)	8,314
1983	(Estimate)30,750	7.0	(1.0)	7,829

1/ Actual dollar amounts of contracts signed up by Cooperators and Export Incentive Plan Participants for foreign market development activities.

2/ Inflation rate based on Consumer Price Index, International Financial Statistics.

3/ Weighted currency adjustments based on Par Rate/Market Rate, International Financial Statistics

Source: International Financial Statistics - International Monetary Fund

ACTUAL FOREIGN AGRICULTURAL SERVICE SIGN-UP AUTHORITY AND AUTHORITY REQUIRED TO MEET 1971 ACTUAL FUNDING LEVEL.

	ACTUAL	REQUIRED
FISCAL YEAR	ACTUAL SIGN-UP AUTHORITY ($ thousands)	1971 SIGN-UP AUTHORITY ADJUSTED TO REFLECT CUMULATIVE AND COMPOUNDED INFLATION RATES AND CURRENCY FLUCTUATIONS ($ thousands)
1971	$ 12,521	$ 12,521
1972	12,397	15,426
1973	12,500	18,281
1974	13,000	21,198
1975	11,736	24,278
1976	12,115	25,117
1977	14,067	27,847
1978	15,646	34,207
1979	20,806	37,137
1980	20,199	41,081
1981	23,673	41,732
1982	28,159	42,409
1983 (Estimate)	30,750	47,417

SOURCE : International Financial Statistics
International Monetary Fund

AGRICULTURAL EXPORTS AND MARKET DEVELOPMENT EXPENDITURES OF THE UNITED STATES AND ITS PRINCIPAL COMPETING COUNTRIES

1979 - 1981

	1979			Revised 1980			Estimated 1981		
	Exports	Market Development	Percent of Exports	Exports	Market Development	Percent of Exports	Exports	Market Development	Percent of Exports
	Bil. Dol.	Mil. Dol.	%	Bil. Dol.	Mil. Dol.	%	Bil. Dol.	Mil. Dol.	%
Australia 2/	6.8	58.6	.86	9.2	67.8	.73	9.5	78.7	.83
Canada 3/	5.4	7.1	.13	7.1	6.0	.09	7.9	5.7	.07
Denmark 4/	3.9	25.0	.65	4.3	26.2	.61	4.1	21.1	.52
France 4/	13.8	16.9	.12	17.0	18.9	.11	16.3	16.5	.10
Israel 4/5/	.9	8.8	1.01	1.0	9.9	1.04	1.0	5.2	.53
Netherlands 4/6/	14.8	39.8	.27	16.5	52.6	.32	15.6	53.0	.34
New Zealand 7/	3.0	27.5	.99	4.2	31.3	.76	4.3	44.1	.80
South Africa	2.0	15.8	.78	2.3	18.9	.82	2.1	16.5	.78
TOTAL	50.6	199.5	.39	61.6	231.6	.38	60.8	240.8	.40
UNITED STATES 8/9/	32.0	34.2	.11	40.5	41.5	.10	43.8	43.9	.10

1/ Exchange rate source : Treasury Reporting Rates of Exchange, Department of the Treasury Fiscal Service, Bureau of Government Financial Operations
2/ July - June fiscal year data.
3/ Export data based on calendar year, market development expenditures on April - March fiscal year.
4/ Calendar year data.
5/ Source for export data is Israel Attache Report Number IS-2005, "Situation Report."
6/ 1979 and 1980 exports were taken from the 1980 FAO Trade Yearbook, United Nations.
7/ Export data based on calendar year, market development expenditures are aggregated over various fiscal years.
8/ October - September fiscal year data.
9/ Includes FAS funds and U.S. market development cooperator contributions.

SOURCE : FAS/FMD/PED

Developing and Maintaining Foreign Markets for U.S. Farm Products—1982 Activities

The clarion call for accelerated market development was sounded by the Agricultural Trade Development and Assistance Act of 1954 (P.L. 480), wherein the President and Congress recognized that our bounty of food and fiber should be shared with the world.

P.L. 480 allowed that up to five percent of foreign currencies generated by overseas sales of U.S. farm commodities under the Act could be used for market development activities.

The National Cotton Council, with years of experience in this area, became the first organization to join with USDA's Foreign Agricultural Service (FAS) in researching and developing worldwide markets for the American farmer and allied industries.

In the fall of 1956, the governments of the U.S. and West Germany reached an agreement whereby the Institute of American Poultry Industries would sell U.S. poultry to the Germans. The hard currency thus generated would be used to promote commercial sales of U.S. cotton and certain other commodities.

Other organizations took notice, and welcomed the chance to become members of the market development club . . . among them, the Oregon Wheat Growers League and affiliates of the tobacco, soybean, and dairy industries.

Since 1955 and the first cooperator agreement with the Cotton Council, the number of nonprofit cooperators working with FAS on a continuing basis has grown to 57. Of these, 50 hold membership in the U.S. Agricultural Export Development Council (AEDC).

Seven of our members also participate in the Export Incentive Program. FAS reimburses part of their costs when they promote products identified by brand names, unlike the larger cooperator program which provides assistance for generic promotions only.

Altogether, the 57 cooperators represent 1,500 U.S. cooperatives, and more than 8,700 U.S. processors and handlers. In addition, cooperators work with some 1,600 foreign firms and trade associations, and foreign governments, not to mention farmers, manufacturers, importers, and consumers.

Established as a result of the provisions of P.L. 480, AEDC's membership answers the call of farmers and agribusiness. Our mission is not only to build markets, but also to maintain them.

The Council endorses the theme, "The Sky's the Limit."

Since 1954 and the passage of P.L. 480, U.S. farm exports have set a brisk pace—increasing about thirteenfold to nearly $40 billion. The Council's goal is $75 billion a year by 1985. This, notwithstanding the recent worldwide recession and the vicissitudes of supply and demand.

With continued cooperation between government and industry, U.S. farm exports will reach forever skyward. That spirit of cooperation and the results attained are embodied in this publication.

AMERICAN ANGUS ASSOCIATION

Year after year, U.S. Angus cattle have become increasingly popular south of the border, as breeders strive to upgrade efficiency of their operations and the size and growth rate of their cattle.

Live bulls and females are in constant demand but the big ticket item is frozen semen from U.S. Angus bulls. The obvious advantages to buyers: no large freight bills, no period of quarantine.

The Association is developing new markets for fertilized frozen embryos from top Angus cows.

Market development efforts by the Association have paid off. For example, cattle sired by U.S. bulls won all the grand championships in 1982 at all three of South America's major cattle shows in Argentina, Uruguay, and Brazil.

AMERICAN HEREFORD ASSOCIATION

The U.S. produces more performance-tested Herefords than any country. That explains why so many buyers knock on the doors of American breeders when they need seed stock, whether semen or live animals.

All the champions at the big shows in Brazil and Uruguay in 1982 came from the U.S., or were the progeny of U.S. Hereford sires through artificial insemination.

Like the other U.S. livestock associations listed in this brochure, the Hereford group is always looking for new business.

Working with the Holstein-Friesan Association, the Hereford Association helped establish Hungary's cattle industry, including the sale of 4,000 bulls and cows plus provision of technical personnel. Shortly after, 2,000 U.S. breeding animals were bought by a large corporation in Spain to establish beef herds.

AMERICAN INTERNATIONAL CHAROLAIS ASSOCIATION

Highpoint of the Association's market development program was signing the Lages Protocol agreement, under which—for the first time—Charolais may be exported or imported by any member of the Confederation of Charolais Associations of the Americas (U.S., Argentina, Brazil, Uruguay, Canada). Heretofore, only "full-French" Charolais were eligible for export to Argentina, Brazil, and Uruguay.

Canada, No. 1 market for our Charolais, in 1981 bought three times more cattle than in the previous four years, thanks to vigorous promotion.

The Association continues to court the Mexican market and is confident that sales will pick up once Mexico's economy bounces back.

Association members attended regional and national livestock shows, cattle sales, and gatherings of cattlemen. Ad promotions prevail in international trade publications.

AMERICAN POLLED HEREFORD ASSOCIATION

For some years, the Association has been promoting exports of seed stock cattle and developing markets for U.S. Polled Herefords.

In less developed countries that cannot afford the high price tags for Hereford bulls, the Association has worked to convince breeders that they need superior stock to upgrade their herds. The Association tries to broaden their knowledge about U.S. beef animals and their availability.

In 1981, for example, a flask of semen from several outstanding bulls was presented to Hereford breeders in Zimbabwe. This gesture had strong impact, for months later, Zimbabwe purchased two Polled Hereford bulls.

AMERICAN QUARTER HORSE ASSOCIATION

The Association's promotion package includes technical assistance, judging at horse shows, media advertising, demonstrations, show training seminars, educational brochures, and films in many languages.

Through persistence, the Associated has helped establish Quarter Horse Associations in 10 countries where export sales prospects are good: Argentina, Australia, Brazil, England, Italy, Mexico, New Zealand, Paraguay, Uruguay, West Germany.

Last year, U.S. breeders sold nearly $16 million worth of American Quarter Horses to 60 countries, led by Mexico, Venezuela, and Italy.

AMERICAN SEED TRADE ASSOCIATION

The Association was a prime mover in getting U.S. seeds into Brazil, which could become a market for several million dollars worth of American stock.

Working with representatives of USDA's Animal and Plant Health Inspection Service and FAS, the Association conferred with Brazil's plant-health officials. Discussions resulted in certification of corn and sorghum seed as being free of sorghum downy mildew.

AMERICAN SOYBEAN ASSOCIATION

From its newest office in Beijing to its renovated Human Nutrition Center in Mexico City, the Association is working to expand the use of U.S. soybeans, and the quality of life through better nutrition, in 76 countries.

According to Chase Econometrics, which conducted a study for the Association, export promotion has increased soybean prices by eight cents a bushel a year during the seventies; soybean production and sales, by more than two percent a year; and gross cash receipts of U.S. soybean farmers, by over $57 for each dollar invested in overseas market development by farmers and FAS.

The Chase study also reported that without checkoff export promotion, U.S. gross receipts would have averaged four percent lower in each year of the seventies.

Among the Association's multifarious activities:

- Promoting full-fat soybeans in livestock rations to ease the glut of vegetable oils in the European market.
- Promoting nontraditional feed uses of U.S. soybeans, such as the use of soy in duck rations in Taiwan through feeding trials for farmers and feed formulators; since 1975, when the Association launched this project, use of soybean meal in duck diets has more than doubled.
- Promoting U.S. soybeans to Japan's tofu industry through the development of a soft tofu production method, technical seminars, recipies, televised cooking classes. Result: After 25 years of promotion, over a half million acres of U.S. soybeans go to Japan's manufacturers of tofu—the equivalent of nearly 16 million bushels.
- Promoting salad bars in Japan and Taiwan to ease the soy oil surplus resulting from successful U.S. market development for soy meal in livestock rations.
- Exchanging information with the People's Republic of China to help modernize and expand its livestock industry; to improve the quality of products from Chinese soy processing facilities; and ultimately, to develop an important market for our farmers.

BEEFMASTER BREEDERS UNIVERSAL

Travel was on the minds of the representatives of Beefmaster Breeders in 1982, having visited Mexico, Honduras, Venezuela, Colombia, Ecuador, and Australia.

Seminars and visits with ranchers and key people in the livestock industries of the countries paid dividends.

In Mexico, Beefmaster sales are on the upswing. In Honduras, Universal representatives witnessed the first transplants of Beefmaster embryos outside the U.S.

Meetings with ranchers in Venezuela have already produced sales of U.S. cattle, embryos, and semen. Semen was sold to Argentina.

The visit to Australia generated a reciprocal visit to this country by one rancher who purchased bulls.

In 1983, Beefmasters will visit these countries again, plus Zimbabwe, Zambia, and Malawi.

CALIFORNIA AVOCADO COMMISSION

When the Commission began to export in earnest in 1976, sales totalled a half million pounds, all to the Far East. In 1978, the Commission set its sights higher. Nearly 1.5 million pounds of U.S. avocados went to Europe alone.

In recent times, the Far East has been buying 2 million pounds, and Europe, 20 million.

The Commission credits this success to sound advertising and merchandizing, working with USDA. In 1981, California growers received $330 million in export sales—an alltime high.

Promotion now concentrates on France through point-of-sale advertising; sales there in the past two years have tripled as a result of promotion.

Japan is virgin territory, since the avocado is virtually unkown. The Commission intends to penetrate that lucrative, potential market.

CALIFORNIA CLING PEACH ADVISORY BOARD

The Board's 1982 promotion campaign focused on Taiwan, where three separate events were staged simultaneously.

The Far Eastern Department Stores, with seven branches, held an "American Living Show" which included an American Food Show featuring California cling peaches and fruit cocktail.

The Art Coffee Chain sponsored a California Peach Festival in nine bakeries and two restaurants, highlighting peach and fruit cocktail, plus prizes.

The Hilton Hotel also held a California Peach Festival, with special peach placemats and point-of-sale materials. Events were kicked off by a press conference.

COTTON COUNCIL INTERNATIONAL

The Council, the first cooperator in the market development program, promotes U.S. cotton in Western Europe, Canada, and the Far East. Promotions run the gamut—from cooperative advertising, sales promotion, and public relations, to fashion shows.

The Council also has special projects, including sponsorship of trade teams to study markets, participation of spinners in the annual U.S. Cotton Orientation program, the Maid of Cotton competition, and publication of the *U.S. Cotton Handbook* and the *Varieties Map*.

One of the top markets for the U.S. cotton industry has been Japan, taking 1.8 million bales in 1982. That year the Council conducted promotions with five major Japanese department stores, each for the first time. After the promotions, the stores were surveyed to determine the effectiveness of the three-month campaign by comparing the promotion period with the same period of the previous year. Among the findings:

- All stores reported increases in sales of cotton items; one store sold 10 percent more than in the 1981 period.
- All stores stocked more cotton items.
- Number of customers who looked for, and bought, 100-percent cotton goods rose sharply.
- Promotions succeeded in sparking greater consumer interest in cotton goods.

The in-store promotions and other activities to expand the use of U.S. cotton by textile mills contributed to an eight-point gain in the U.S. share of Japan's import market, to 46 percent in fiscal year 1982. The Council works closely with the Japan Cotton Promotion Institute.

Similar activities in South Korea, co-sponsored by the Spinners and Weavers Association of Korea, helped push the U.S share of Korea's cotton market to 94 percent, up 6 percentage points. This was achieved through mill promotions, trade servicing, a visit by the U.S. Maid of Cotton, technical assistance, and maintenance of a cotton services information library.

CALIFORNIA TABLE GRAPE COMMISSION

In fewer than 10 years of cooperating with FAS, the Commission has boosted overseas sales by nearly 44 percent. That figure does not include Canada, which accounts for around nine-tenths of U.S. exports of California grapes; i.e., offshore shipments only.

The tally for 1982, based on preliminary figures, was even higher. Sales to offshore markets came to some $20 million, or 21 percent more than in 1981, not counting the heaviest months of November, December, and January.

The Commission uses TV to promote California grapes—the European types with thin skins—in Hong Kong and Guatemala. In these and other countries, the Commission also relies on the print media, including newspapers, trade journals, and magazines.

Out-of-hand eating gets primary emphasis when promoting through the media, although alternative uses of California's juicy grapes—such as in salads—are a big selling point.

Reflecting the spirit of cooperation among the members of AEDC, the Commission works closely with Sunkist Growers, Inc., in developing markets for California grapes in Japan.

CALIFORNIA RAISIN ADVISORY BOARD

California raisins gained a new market—the Republic of Korea—when the South Korean government stopped quantitative restrictions on raisin imports in 1981.

Immediately after the liberalization move, however, the Korean market went into chaos: Importers were overbuying, and consumer demand was sluggish.

The Advisory Board stepped in with a special promotion campaign—televison, magazines, and newspapers advertised the availability, quality, and nutritional values of California raisins. Korean retailers were also helped in the promotion of consumer packages of raisins in their stores.

The market has since stabilized, and appears ready for consistent development. The California industry reports that importers are re-ordering from the U.S.

DAIRY SOCIETY INTERNATIONAL

The Society was one of the first organizations to respond to FAS's invitation to join Cotton Council International and others in the cooperative approach to develop overseas markets for American agriculture.

In recent times, the Society has scaled down its program because of noncompetitive pricing, and the worldwide glut of dairy products.

However, the Society wants to keep all avenues open for market development when conditions are more propitious. In the fall of 1982, the Society opted for a five-year extension of its market development agreement with FAS.

Promotion plans have not been laid, but the most likely choices include market surveys, research and analysis, and demonstrations of U.S. specialty dairy products.

EASTERN UNITED STATES AGRICULTURAL AND FOOD EXPORT COUNCIL, INC. (EUSAFEC)

Two floors of the New York City Coliseum were taken over by the Council at its first International Trade Show.

Both foreign and American organizations participated. Results were outstanding. Export orders tallied over $10 million. One stand, rented by the State of Washington, took in more than $1.5 million.

The Council has scheduled another show in 1984 at the same location. There will be more space for exibitors, and hopefully, even higher export sales than generated at the 1982 show.

FLORIDA DEPARTMENT OF CITRUS

Vagaries of weather need not deter market development efforts. The Commission demonstrated that principle in 1982 when the Florida citrus industry was hit by a severe freeze.

France is our leading European market for fresh grapefruit. In 1980/81, year of the first big freeze in recent times, the U.S. still managed to ship nearly two million cartons to that country.

This past season, despite another freeze, that volume was maintained due to activities conducted in the previous year, with emphasis on advertising the virtues of Florida citrus.

FLORIDA NURSERYMEN AND GROWERS ASSOCIATION, INC.

The Association has completed phase one of a market study in Western Europe for the sale of tropical ornamental foliage plants from Florida. Attitudes of growers and wholesalers surveyed here and in West Europe indicated favorable reaction to the introduction of horticultural products from the U.S.

At the international Floriade in Amsterdam, the Florida Nurserymen and Growers Association installed an indoor garden, representative of the tropical foliage plant material that the market study had identified as the prime product line for export development throughout Europe. The U.S./Florida exhibit itself received six international Awards of Excellence.

Future stages of this cooperator program will involve direct dealings with prime importers and wholesalers.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA

In early 1981, a livestock market development team traveled to Saudi Arabia to assess the market potential for U.S. Holsteins, promote Holstein genetics, and make market contacts. Thus far, over 5,300 head, valued at more than $8 million, have been sold to the Saudis.

Hungary now boasts the highest milk production per cow in Europe, due in large measure to the export to that country of over 16,000 U.S. Holsteins in the past decade, combined with technical assistance programs and exports of semen.

In Ecuador, the Association sponsored seminars on technical management in 1982. By mid-year, U.S. exports were four-fifths higher (over $622,000) than in the same period of 1981.

Similar seminars held in South Korea and other market development efforts have established the U.S. Holstein as the leading dairy breed. Besides live animals, the U.S. is now shipping Holstein embryos.

Australian veterinary authorities, who closed their country to imports of U.S. bovines in 1977, have re-opened their borders following visits by U.S. Holstein breeders arranged through the Association. Having undergone an extensive quarantine period, the first U.S. Holsteins are in Australia, and will have a major impact on breeding programs there.

MID-AMERICAN INTERNATIONAL ARGI-TRADE COUNCIL (MIATCO)

The 12 member states of MIATCO reported exports of $22.3 billion in fiscal year 1981, or slightly more than half of all U.S. agricultural exports.

In promoting farm exports from the Midwest, MIATCO sponsors a variety of programs, from seminars and luncheons to foreign buyer assistance, trade show participation, and trade missions to investigate selected foreign markets.

Last fiscal year, for example, the Council organized a seminar attended by food specialists from Japan, who evaluated the products of 18 Midwest firms in terms of market potential.

A Specialty Crops Trade Mission went to four European countries to assess demand for specialty crops such as pulses, health foods, forage seeds, and grains.

Seminars in Mexico on Midwest dairy cattle exports generated sales of up to 2,000 bred dairy heifers per month over a year's time, plus 15,000 calves and some swine.

A Singapore firm bought over $1 million worth of U.S. swine as a result of MIATCO's trade team visit and follow-up servicing of the Singapore buying team.

A trade mission to South America found export prospects to be promising in Venezuela and Trinidad for breeding livestock, processed foods, and pulses.

NATIONAL ASSOCIATION OF ANIMAL BREEDERS

Supporting the marketing efforts of commercial semen exporters, the Association works to reduce non-tariff trade barriers relating to health testing of donor bulls and their genetic merit.

In West Germany, the Association successfully negotiated the revision of import health requirements that had prevented market access for most U.S. semen exporters during much of 1981. U.S. semen sales to Germany in the first half of 1982 totalled over $1.8 million, up from $980 thousand in the same period of 1981.

Semen exports to South Korea increased fivefold, to $91 thousand in the first half of 1982, in large part owing to the Association's participation in the Korea-USA Dairy Seminar.

In France, semen sales rose about 250 percent over the 1981 period to $786 thousand, following the Association's participation in the Salon International Agriculture Fair.

U.S. semen sales to the Netherlands increased by more than 120 percent in the first half of 1982 to $2.3 million—a credit to market promotion and constant communication with veterinary authorities on import requirements.

NATIONAL COTTONSEED PRODUCTS ASSOCIATION

The Association next year will be filing a longer report, as 1982 was the first time this organization ventured into the field of overseas market development.

Testing the waters, the Association and the Japan Cottonseed Crushers Association held seminars in nine Japanese cities for more than 1,100 chefs, who learned about the advantages of using cottonseed oil from the U.S. Trade ads featuring the chefs launched this initial campaign.

NATIONAL FOREST PRODUCTS ASSOCIATION

The joint industry/USDA market development program has been expanded to include 15 industry associations, compared with 7 in fiscal year 1982. The industry has high hopes for exports, which by decade's end, should more than double the current $3 billion a year.

Japan remains the chief buyer of U.S. solid wood products ($1.3 billion in 1981) but $800 million of sales have been softwood logs. Opening the Japanese market to higher-valued wood products is the challenge facing the Association.

Despite a 1979 agreement under which Japan would set performance standards that would permit U.S. panel products to be used for all construction purposes, some technical problems still need to be resolved. However, American Plywood Association scientists held meetings with Japanese officials in 1982, and a workable solution appears imminent, giving the U.S. industry a larger share of the Japanese plywood market.

Venezuela's growing demand for low-and middle-income housing offers an excellent opportunity for American suppliers of wood products. In 1982, the American Plywood Association, in cooperation with the National Institute of Housing, erected demonstration units near Caracas using U.S. plywood and lumber to replace the traditional masonry house, which is expensive and inefficient.

Through additional USDA/industry market development efforts involving the training of building inspectors, architects, and users, U.S. wood products should be able to garner a large part of the Venezuelan housing market encompassing 125,000 units a year.

Other South Central American and Caribbean countries are watching this pilot project. The Association estimates that total housing needs of the entire area will exceed one million units by 1990.

NATIONAL HAY ASSOCIATION

Activities centered on trade shows in Mexico City and Verona, Italy, worldwide distribution of brochures, and a trade mission to Japan and South Korea.

The Association views the trade mission to the Far East as only a beginning to the development of new markets. Other targets include the Caribbean, South America, Europe, and the Middle East.

When it comes to formidable obstacles, the Association chose two to test the mettle of its members. First, Canada and the People's Republic of China have the lion's share of the Japanese market for alfalfa products. Second, the Republic of Korea prohibits the import of forage products.

Association members joined hands with the U.S. Feed Grains Council in a marketing plan embracing the following: Providing prospective buyers and government officials in Korea and Japan with information on the value, availability, and supply of high quality forage products from the U.S.; and arranging exchange visits of specialists to develop better trade relations and a better understanding of forage technology in the three countries.

NATIONAL PEANUT COUNCIL

The Council's success stories have to do with Britain, Belgium, and West Germany.

A team of British food editors saw the 1981 peanut harvest in the U.S. Southeast, then visited peanut farms, plants that do the shelling, blanching, and processing, and met with researchers and home economists.

The Council reckons that U.K. consumers should be introduced to something other than salted peanuts. So, the journalists were told about the variety of uses for peanuts and peanut butter and the versatility of recipes in home cooking.

In Belgium, the Council teamed up with Duyvis, the brand leader for peanuts in Holland, to push U.S. peanut products in the country's leading supermarket chain. Product sampling and displays proclaiming the products originated in the U.S. With more promotion, Belgium's peanut consumption could double within four years.

West Germans in the past have preferred the small, Spanish-type peanuts called "peril" nuts (supplied mostly by South Africa), but the Council is determined to get large, in-shell American peanuts into the German market on a year-round basis.

In cooperation with two leading importers and distributors in Germany, the Council launched a campaign designed to extend the peak buying period beyond the Christmas holidays. This project featured in-store promotions of in-shell peanuts, including a new package design using the "USA" identity, point-of-sale materials, and newspaper ads.

Initial efforts were a success, with in-shell exports to West Germany reaching five thousand metric tons in fiscal year 1982, 10 times more than in 1981.

NATIONAL POTATO PROMOTION BOARD

U.S. exports of frozen potatoes to Japan have increased nearly fourfold since 1977 when the Board began to develop that market in cooperation with FAS. U.S. frozen potatoes now account for about 90 percent of Japan's imports of this product, with an export value of $27 million in 1982.

Fast food outlets continue to expand, thus the surge in demand for U.S. frozen potatoes. Outlets are growing at the rate of 50 to 75 units annually, and the figure is expected to triple in the next few years.

Keenest competition for the Japanese market comes from Japanese suppliers. The Board stresses "high quality" in market promotions, plus nutrition and ideas for serving the American product. A Board spokesperson has appeared on a number of TV shows, one of which drew an audience of six million viewers.

NATIONAL RENDERERS ASSOCIATION

By the spring of 1983, Egypt will have its first facility to store tallow at a terminal by Alexandria harbor. Ten tanks with a total capacity of 2 thousand metric tons are being built with the technical assistance of the Association, and the financial assistance of the U.S. Agency for International Development.

Egypt, top market for our tallow, bought over 205 thousand metric tons in 1981, up nine percent from 1980. This $100-million market for the U.S. wants to expand use of tallow for edible items, soaps, and animal feeds, including a tallow-based milk replacer. The Association's role: to develop and distribute research data.

A five-year ban on the import of meat-and-bone meal by the Republic fo South Korea is over. The Association played a hand in getting the Ministry to reverse its decision. And, for the first time, Korea now allows feed companies to import animal fat—again, a result of the ties between the Association and feed manufacturers and livestock growers.

In Guatemala, the government decreed that feed grade animal fat is finally on the import list. For years, the Association and USDA have been promoting U.S. tallow in that country, most recently at the Latin American Poultry Congress in 1981 where a poultry expert of the Association gave a presentation and an industry representative furnished samples of U.S. products.

NATIONAL SUNFLOWER ASSOCIATION

As we emphasized in the preface of this publication, markets attained must be maintained. A prime example is Venezuela--the most consistent market for U.S. sun oil, in some years taking upwards of $50 million worth.

But all markets have their problems. In this instance, an Association representative surveyed the market and found a problem with sun oil refining. The Association arranged to have a technician from Archer Daniels Midland investigate the situation.

In solving most of the technical problems, the technician reported keen interest in using U.S. sun oil for margarine, another export opportunity for the U.S. sunflower industry.

OCEAN SPRAY CRANBERRIES, INC.

Every major supermarket in Australia now carries cranberry sauce round the year from the U.S. industry. It started in 1975 with shipments of cranberry sauces in tins and glass jars. In 1980, the Ocean Spray licensee in Melbourne was provided frozen cranberries from the U.S. Sales since then have more than doubled.

Ocean Spray had the same success in Japan, but in this case it was the totally new taste of cranberry juice drinks that titilated Japanese palates. Sales of juice, totally new to Japan, may well have increased by 350 percent in 1982 over the 1981 figure.

In both markets, Ocean Spray used consumer-oriented advertising to aquaint them with an unknown American fruit.

PACIFIC WINES INTERNATIONAL

Delicato Vineyards of California had exported little wine until Pacific Wines had a booth at the London Wine Trade Fair and participated in a California Wine tasting competition sponsored by the USDA Agricultural Trade Office.

At the exhibition, Pacific Wines people appointed an agent and importer for the Delicato brand. Sales to the U.K. in 1981 were about 1,000 cases; in 1982, sales were about 4,000 cases.

The brand is now being marketed in five countries of Europe and four in Asia through-point-of-sale materials.

Pacific Wines could not have scored these export sales without the funding by the Export Incentive Program. But as Pacific Wines points out, there is no generic promotion of California wines, no organization such as France has to dispense educational materials.

Pacific Wines believes that the U.S. as a whole needs a marketing strategy, including more promotion campaigns and joint efforts to break down trade barriers and to call attention to the contribution of exports to the health of the American economy.

POULTRY AND EGG INSTITUTE OF AMERICA

Before the Institute began its campaign in Japan, now the leading buyer of U.S. poultry, the Japanese had not eaten poultry with the bone in. Today, thanks to market development, chicken legs are the best seller.

Japan is also the top market for U.S. egg products. The Institute has been working with importers and users, sponsoring seminars and demonstrations and offering technical services. U.S. egg product sales more than doubled in 1981. Volume of duck shipments increased by more than 85 percent following promotions in cooperation with two U.S. duckling producers.

Joint promotion projects with importers, retailers and restaurant chains in Europe and the Far East placed special emphasis on U.S. poultry specialty items to broaden the product mix sold.

A major recipe promotion in the Middle East, designed to acquaint consumers with the wide variety of U.S poultry products, resulted in the brands of 34 exporters being represented in the market, including whole chickens, parts, duckling, game hens, turkey, and further processed items.

The Institute's varied approaches to market development are too numerous to be listed in this space. Point-of-purchase promotions, cooking demonstrations in supermarkets and hotels, recipes geared to local cookery, napkins and menus, posters, carryout lunch boxes, seminars, and technical services, have all contributed to the export sales of the U.S. poultry industry—in fiscal year 1982, well over a half billion dollars.

RICE COUNCIL FOR MARKET DEVELOPMENT

The Council's programs in the Middle East deserve much of the credit for boosting sales to that region to 758 thousand metric tons in the 1982 marketing year—nearly 70 percent more than in 1981.

The Council targets its promotions at consumers, the food service trade, and rice importers through educational programs, the print media, and television. The campaign was strengthened in 1982 and the tempo will be maintained in 1983, always emphasizing the point that the U.S. rice industry offers a reliable supply of high quality rice.

Exports to Iraq have grown steadily to an estimated 320 thousand metric tons in 1982. Since 1976, the Council has made regular visits to Baghdad to consult with the Iraqi Grain Board, and has sponsored trips of Board members to our country.

The Council's effort in West Europe continues to produce good results, despite increasing competition in that market and the European Community's policy of variable levies that restrict market access.

Long grain rice, once unheard of in Europe and Scandinavia, is now a popular side dish and is used in meat recipes. The Council reaches consumers through all media; an expanded effort to reach editors of food magazines in 1982 generated a record number of articles highlighting the excellent quality of rice from the U.S.

In West Africa, the Council's staff and industry representatives have traveled extensively. One result was the opening of a Rice Council office in the Ivory Coast to begin operations in early 1983—the first office to be established in West Africa by a cooperator of FAS.

A dividend of persistent promotion of commercial sales of U.S. rice: They represented only 29 percent of all U.S. rice exports in the 1971/72 marketing year versus 92 percent in 1981/82, the remainder being exports under P.L. 480.

SUNKIST GROWERS, INC.

Malaysia in 1979 lowered the customs duty for fresh fruits by 50 percent, and by an additional 10 percent for fresh oranges shipped directly to Malaysia rather than through Singapore.

Seizing the opportunity to promote U.S. produce in this market, Sunkist conducted a trade survey in Malaysia's three largest market centers to explore the structure of the produce trade and the distribution system for perishables. The Sunkist survey team interviewed 65 importers and wholesalers. Knowledge gained during this mission will be invaluable in planning marketing strategies for the future.

In the 1981-82 season, Malaysia bought approximately $2 million of Sunkist fresh citrus, compared with only $12 thousand in 1977-78. Virtually all shipments are fresh oranges (about 60 percent valencia oranges and 40 percent navel oranges).

SOUTHERN UNITED STATES TRADE ASSOCIATION (SUSTA)

Sponsorship of a trade show and referrals of trade leads to interested exporters were two major activities of SUSTA in 1982.

Hills Valley Foods of Arkansas made its first international sale—$60 thousand worth of mixed cheeses to the Caribbean—as a result of SUSTA's International Food and Agriculture Trade Show in New Orleans. Orders could mount to more than a half million dollars.

Two Florida firms, Save-A-Stop and Gulf and South Atlantic Fisheries, also found new business at the International Show, with the Gulf company reporting sales to Venezuela, Nigeria, Egypt, Taiwan, Japan, and the Caribbean.

SUSTA helped North Carolina packers find importers in Panama, the Dominican Republic, and the Bahamas. A popcorn firm in North Carolina followed up on leads provided by SUSTA, and reports exports of around 20 tons a week.

In South Carolina, International Industries Corp. credits SUSTA's assistance in raising export sales from $800 thousand last year to an estimated $1.5 million in 1982.

Food America Exports of Viginia, also at the International Show, reports new contacts with companies in the Caribbean and West Europe, and Finland has become an active buyer of mushroom and chicken bases for frozen crepes for supermarkets.

TANNERS' COUNCIL OF AMERICA, INC.

Of all markets of the U.S. tanning industry, the People's Republic of China heads the list. In 1981, China bought $63 million worth of wet blue and leather.

U.S. companies want to cash in on this business, so USDA and the Council sponsored a trip for U.S. tanners to the Canton Leather Exhibition in 1982 following the Tokyo Leather Fair a week earlier.

U.S. tanners at the Canton show met with leather buyers and technicians from all over the country—a grand opportunity to find out who does the buying. American tanners had several meetings with government and industry leaders and toured the establishments of Chinese tanners and manufacturers.

The Chinese expressed interest in expanding access to the U.S. footwear market. They wanted more information; the U.S. tanners gladly obliged. The Council has drafted a proposal for a "utopian exhibition" in Peking, exclusively for U.S. tanners.

USA DRY PEA & LENTIL COUNCIL

Last year, a record $106 million worth of dry peas and lentils from the U.S. went to more than 60 countries. Working through offices in Europe and the Far East, from its home office on the Idaho-Washington state line, the Council has conducted worldwide market development activities since 1965.

Activities ranged from developing new product uses for dry peas in Japan, Taiwan, and Korea, to a point-of-sale campaign in Spain promoting quick-cooking U.S. lentils. Besides Europe, market development and survey trips were made to North Africa, and the Far East—the traditional large buyers.

In cooperation with USDA, the Council arranged to have a team of grade specialists visit South America. Exports to all five countries have gone up since that venture.

Future market development programs of the Council will be oriented toward expanding markets in the developing countries and exploring new markets.

U.S. FEED GRAINS COUNCIL

The Council continues its efforts to open new markets for U.S. corn and sorghum by conducting a wide variety of activities in 46 countries via a worldwide network of 13 offices. While working to find new buyers for U.S. feed grains, the Council provided trade services to already-established markets.

As part of the drive to develop new markets, the Council opened offices in the People's Republic of China and in Venezuela. The full-time representative in the latter country monitors developments of interest to U.S. traders, and advises Venezuela's livestock sector on feeding and management practices.

Other significant Council activities in 1982 included:

- Sponsorship of a visit to the U.S. by six Chinese engineers to study the corn processing industry, with emphasis on fructose. The Council estimates that the establishment of a corn processing plant in the People's Republic could create a demand for an additional 2 million tons of corn.
- Continued development of the sheep sector in the Middle East. In Syria, the Council's "heavy lamb" program—started just three years ago with 100 lambs—has since grown into a 750,000-head sheep sector that uses a feeding system based on grain rations. As the program spreads to Jordan and other countries in this region, demand for feed grains could increase by several million tons.
- Participation on a Japanese panel investigating ways to steer Japan away from its protectionist policies governing agricultural imports. The Council's feed specialist in that country reported the Japanese may become less dependent on government subsidies.
- Sponsorship of a visit to the U.S by a team of East German feed and livestock specialists. This marked the Council's first program activity with East Germany and the culmination of three years of groundwork.

U.S. MEAT EXPORT FEDERATION

Red meat sales to such traditional markets as Japan and Europe are on an uphill climb. Now, the Federation is after the potentials—in the Middle East, Latin America, the Caribbean, the Far East.

In Japan, America's chief buyer of grain-fed beef and pork, the U.S. share of that country's import market has risen from 9 percent to over 21 percent since 1977.

Translated into dollars, exports shot from $52 million to $163 million.

U.S. variety meats in Japan are the new star. The country is our No. 2 importer, taking more than $105 million worth in 1981.

To mention just a few of the marketing activities of the Federation's office in Tokyo:

- Coordinating hotel and restaurant promotions featuring U.S. meats in Japan, Hong Kong, Taiwan, Seoul, Manila, Singapore, Jakarta, Bangkok, and Kuala Lumpur.
- Displaying U.S. meats in supermarkets and at trade fairs.
- Publishing a quarterly magazine and a purchasing guide.
- Convincing the corporation that controls 90 percent of Japans imports to drop its one-year probation for newly approved packers and processors, and to drop the requirement that all approved packers and processors must have slaughtering facilities.

The Federation's offices in London and Hamburg have coordinated menu promotions in Western Europe, participated in trade and food shows and retail promotions, and published booklets on the U.S. meat industry.

Also in Europe, the Federation has designed a marketing strategy to identify American variety meats at the retail level, highlighting the quality of meats from grain-fed animals.

In the Middle East, the Federation's three-year-old program has already produced a dramatic growth in U.S. beef sales—from virtually nothing to several thousand tons annually—particularly to Saudi Arabia. The Federation is intensifying its efforts in this region by enlisting third party cooperators and hosting educational seminars and product promotions.

Another market ripe for entry is Latin America and the Caribbean; market development activities are under way through the Federation's newest office in West Des Moines, Iowa.

U.S. WHEAT ASSOCIATES

American wheat producers continued their major market development effort in the People's Republic of China by helping set up a $1.5 million bakery that will also serve as a training center and produce bread for the Beijing area.

Another project in China—a model instant noodle plant—opened in Shanghai in the fall of 1982. In just eight hours, the plant can turn out 30,000 meals, a real convenience for Chinese workers.

As with the model bakery, costs of the noodle plant were shared with the Chinese. U.S. Wheat Associates (USW) provided the equipment, installation, training and technology. The Chinese provided the land, building, labor and utilites. Under discussion is a 150-ton flour mill for Beijing, to be used for both production and training, as well as to encourage other mills to produce a high-quality, consistent product.

U.S. wheat exports to China were 8.5 million tons in the 1981/82 marketing year, valued at $1.4 billion.

Some other activities of USW included:

- Intensive efforts by USW to change Malaysian import patterns that led to a significant switch to U.S. wheats during the last year—largely attributable to the sucess of USW consultants in convincing the Malaysians to consider quality, rather than simply price, in making purchase decisions. As a result, wheat imports jumped from 10 percent to 24 percent of total wheat imports, with continued gains anticipated.
- Sponsoring two trainees to a 10-month course in Milling Technology in India, where they will learn the utilization, qualities and characteristics of U.S. wheats.
- Developing sales in the emerging market of Syria by sending a trade team to the U.S. from that country, and by providing trade and technical services.
- Setting up a regional training program for millers in the Middle East. Last year the Cairo Milling Shortcourse provided training for Egyptian millers only, but its success resulted in the decision to expand the program.
- Establishing the *Monthly Arabic Newsletter* focusing on the U.S. and world wheat situation and complementing the *U.S. Wheat Review* and the USW/Washington *Newsletter.*
- Providing technical assistance and market information to Sudan over the past two years, which enabled U.S. wheat and flour to dominate the Sudanese market.
- For the past five years, USW has been conducting baking seminars and demonstrations in West Africa, traditionally a French market. Positive results of this work can be seen in the Ivory Coast where the largest bakery ordered U.S. wheat flour. Following favorable baking results, the news was passed to other bakeries, generating more interest and inquiries on the use of American wheats.
- Sponsoring the Mexico-Central America Wheat Products Industry Development Conference in Mexico, where the trade and officials learned the advantages of buying U.S. wheat and how to improve marketing and processing practices.
- U.S. Wheat assistance was vital in establishing the Latin American Industrial Millers Associaton (ALIM). First proposed by USW in 1979, the ALIM was formally organized in July 1982 by representatives of private millers associations from Ecuador, Colombia, Venezuela, Bolivia, and Peru.

The purpose is to enable millers to exchange information and technology and thereby improve the quality of milled wheat products in Latin America. ALIM member countries imported 2.6 million metric tons in marketing year 1981/82 from the U.S. out of total imports of 2.7 million. These same countries imported a total of 2.5 million metric tons from all sources in 1978/79.

It is expected that milling associations in other Latin American countries will join ALIM, and that its success in improving the quality of milled wheat in South America will increase consumption of U.S. wheat in the region.

WESTERN UNITED STATES AGRICULTURAL TRADE ASSOCIATION (WUSATA)

The Association helped Western Growers Association stage a fresh fruit exhibit in Hong Kong—a market to watch. Also in the Far East, the WUSATA representative conducted a market survey in Thailand, Singapore, Taiwan, and Japan.

The Association had a booth at the FAS exhibit at the IGEHO exhibition in Switzerland. The institutional food trade were impressed by the products shown by the 11 U.S. firms participating.

In Japan, the Association hosted members of the Japan External Trade Organization at a tasting and evaluation seminar in Seattle, Washington. The Japanese provided valuable evaluations of the taste, appearance, packaging, and other characteristics of American products.

Also in Japan, importers and representatives of food service firms tasted over 40,000 cheese samples from Utah. This promotion resulted in 20 solid trade leads.

WINE INSTITUTE

A tasting program begun two years ago produced good results. Canada in 1981 upped its imports by more than one-fifth, and imports by England more than doubled for the third year in a row.

Tastings have been held in many cities: Manila, Hong Kong, Singapore, Copenhagen, Montreal, Toronto, Hamburg, Brussels, Dublin, and Paris.

At the Paris event, over 50 California wineries presented their wares to more than 200 people.

The U.S. Ambassador to France, Evan Galbraith, summed it up in these words: "We have been able once again to bring to the attention of the French wine press and trade the excellent quality of our wines."

In Dublin, the *Irish Times* reported, ". . . Finally, it could be said that California is now truly flying and the sky is the proverbial limit."

SUBCOMMITTEE RECESS

Senator **Cochran**. That concludes our hearing today. The subcommittee will stand in recess until 9:30 tomorrow morning, when we will again hear from congressional and nondepartmental witnesses.

[Whereupon, at 1:05 p.m., Tuesday, April 19, the subcommittee was recessed, to reconvene Wednesday, April 20, at 9:30 a.m.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1984

WEDNESDAY, APRIL 20, 1983

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 9:35 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran and Burdick.

NONDEPARTMENTAL WITNESSES

CONGRESSIONAL WITNESS

STATEMENT OF HON. ROGER JEPSEN, U.S. SENATOR FROM IOWA

ACCOMPANIED BY:
JOHN P. MAHLSTEDE, ASSOCIATE DEAN AND ASSOCIATE DIRECTOR, IOWA AGRICULTURE AND HOME ECONOMICS EXPERIMENT STATION, IOWA STATE UNIVERSITY
ERIC DEE, IOWA PORK PRODUCERS ASSOCIATION

OPENING STATEMENT

Senator COCHRAN. The subcommittee will come to order.

This morning, we will continue our hearings for Members of Congress and nongovernmental witnesses on the President's budget requests for the Department of Agriculture and related agencies which come under the jurisdiction of this subcommittee.

We are confronted with a long list of witnesses today, and in order to make sure that everyone has a chance to be heard, we are hoping that witnesses can summarize from their written statements, so we will have an opportunity to discuss some of the issues that are raised during the course of today's hearing.

I have been asked to mention also that the subcommittee cannot receive any copyrighted materials for publication unless arrangements have been made in advance by the witness to obtain the permission of the copyright owner that those materials be included in the subcommittee hearing transcript. This is to protect copyright owners, as well as the subcommittee and witnesses.

This morning, we are very happy to welcome as our leadoff witness my good friend and our distinguished colleague from the State of Iowa, Senator Roger Jepsen.

Senator, we are very happy to have you here, and please feel free to introduce those with you and proceed in any manner you wish.

Senator JEPSEN. Thank you, Mr. Chairman. I appreciate the opportunity to appear before you to discuss two issues of special concern to me. They are to fund the establishment of a soil tilth center at Iowa State University and to continue funding of pilot project programs for the eradication of the swine disease pseudorabies.

SOIL TILTH CENTER

Mr. Chairman, new statistics are beginning to reveal that the deterioration of agricultural land quality, coupled with loss of land quantity, could be so great in the next few years that what once seemed like this country's almost infinite ability to produce food and fiber for the world may become very limited.

My home State of Iowa produces 20 percent of the Nation's corn crop and nearly 15 percent of the soybean crop. The average annual soil loss per acre is nearly 10 tons. That is twice the level at which topsoil and nutrients can be replaced through natural processes.

While erosion levels have increased, the money necessary for adequate soil conservation research has declined. Thus, while the USDA has gathered data proving the extent of erosion loss, it lacks research facilities capable to develop the necessary technology to halt that loss.

A national center located in Iowa would be in the midst of a major soil resource area devoted heavily to field crop production and which is generally representative of the soil problems in the Corn Belt. These problems are distinctly different from those in other parts of the country. The soils and the climatic area represented are of major significance in food production for the whole world.

Even though the United States has the best technology in the world, the best fertilizers, herbicides, and the most modern equipment, the basic and most important ingredient for providing abundant food to feed a hungry world is good soil. Funding for the construction and operation of the Soil Tilth Center will be a significant step toward preserving our Nation's good topsoil.

INTRODUCTION OF DR. MAHLSTEDE

Mr. Chairman, I do request the remainder of my statement be made a part of the record, and I would like to introduce Dr. John Mahlstede, associate dean and associate director of the Agriculture and Home Economics Experiment Station at Iowa State University. Dr. Mahlstede was the first representative appointed to represent the State Agriculture Experiment Stations to serve on the Joint Council for Food and Agriculture. This council was established by the 1977 farm bill to advise the Secretary of Agriculture and Congress on matters related to agriculture. Dr. Mahlstede is currently serving as the Agriculture Experiment Station representative in the Division of Agriculture of the National Land-Grant Association.

PSEUDORABIES

Mr. Chairman, I also appreciate the opportunity to appear before you in support of the request of the Iowa Pork Producers, and pork producers of all of our States, in requesting funding for continuation of pilot project programs for the eradication of the swine disease pseudorabies. I have asked, in the interest of time and your request, Mr. Chairman, that the balance of my remarks in regard to the pseudorabies program be entered in the record.

I would also like to introduce a good friend of mine, and a good friend of our Nation's pork industry, Mr. Eric Dee. Mr. Dee is a pork producer from State Center, Iowa. He farms 500 acres and raises 2,000 hogs per year. Mr. Dee is also a member of the Iowa Pork Producers Association. If the funding level for fiscal year 1984 is adequate for the pseudorabies pilot program, Mr. Dee's county—Marshall County—is the targeted county for Iowa.

At this time, Mr. Chairman, I would be pleased and proud to introduce these two gentlemen. Dr. Mahlstede will have words with regard to the Soil Tilth Center; Mr. Dee with regard to pseudorabies.

Senator COCHRAN. Thank you, Senator. Your entire statement with the exhibits you have attached will be included in the record.

[The statement follows:]

STATEMENT OF SENATOR JEPSEN

Mr. Chairman, I appreciate the opportunity to appear before you and discuss two issues of special concern to me: funding to establish a Soil Tilth Center at Iowa State University and funding for continuance of "pilot project" programs for eradication of the swine disease, pseudorabies.

FUNDING FOR ESTABLISHMENT OF SOIL TILTH CENTER

New statistics are beginning to reveal that the deterioration of agricultural land quality, coupled with loss of land quantity, could be so great in the next few years that what once seemed like this country's almost infinite ability to produce food and fiber for the world may become limited.

My home state of Iowa produces 20 percent of the nation's corn crop and nearly 15 percent of the soybean crop. The average annual soil loss per acre is nearly 10 tons -- twice the level at which topsoil and nutrients can be replaced through natural processes.

While erosion levels have increased, the money necessary for adequate soil conservation research has declined. Thus, while the U.S.D.A. has gathered data proving the extent of erosion loss, it lacks research facilities capable to develop the necessary technology to halt that loss.

I am testifying today for funding to establish a Soil Tilth Center at Iowa State University in Ames, Iowa, which will require the center to conduct research related to the development of practices that can help maintain and improve the soil tilth.

A national center located in Iowa would be in the midst of a major soil resource area devoted heavily to field crop production and which is generally representative of the soil problems in the corn belt. These problems are distinctly different from those in other parts of the country. The soils and the climatic area represented are of major significance in food production for the whole world.

Soil tilth is a qualitative term used to describe the condition of the soil related to plant growth and water movement. Good soil tilth helps to prevent erosion, while poor soil tilth frequently reduces crop yields by preventing plants from utilizing all the nutrients and moisture available in the soil.

Soil tilth deterioration is a major factor in a number of problems. Scientists at such a center would be able to study the following areas:

- The effects of intensive intertilled crop production upon soil tilth, soil structure, soil characteristics, and productive capacity;
- The effect of intensive grain production upon the seedbed environment;
- The potential loss of productive capacity, soil tilth deterioration, and soil and water losses due to intensive corn and soybean production;
- The impact of improved management and cultural practices on nonpoint source pollution from corn and soybean land, as well as studying the more effective use of plant nutrients and soil moisture; and
- Alternative tillage systems that will result in improved soil tilth for continued crop production, reduce reliance on chemical pesticides, reduce energy requirements, and maintain or improve crop yields.

Our Midwestern farmlands, the lands which allowed the Midwest to earn the label, the "breadbasket" of the world, must be preserved and improved so that our future food and fiber needs can be efficiently produced. As early as 1959, leading soil scientists and the Congress recommended, in Senate Document 59, that a Soil Tilth Center should be established at a land-grant university in the corn belt. The report suggested that:

> More information is badly needed to determine the effect of contour listing, level terraces, and other conservation practices on runoff and sediment yield.

The report continued that:

> The relation of the structural attributes of the soil to water intake, soil and water losses, tillage practices, and crop production have particular significance in this area, where the intensive intertilled cropping patterns leave the land exposed to erosion during critical periods.

The report concluded that:

> If scientists could develop practical methods of exerting a real control over the tilth of soils, many critical problems of farm and watershed conservation could be met with less costly measures than are now available...At the present time, progress in research on soil tilth is seriously hampered by lack of a basic understanding of the nature of the forces involved in holding soil particles together in a stable crumb structure.

Research at the Soil Tilth Center would result in new technology that would be available immediately for application on farms and other areas through the Soil Conservation Service and the Extension Service.

The Center would be national in scope, with particular emphasis on Midwest corn and soybean soils. Iowa has the largest amount of intertilled acres of any state in the United States, and its soils are therefore most representative of such Midwest soils. Specifically, the Center would fulfill research needs for the corn belt and the eastern great plains. Senate Document 59 agreed that the facilities needed to conduct the proposed research in such a Soil Tilth Center should include: offices, laboratories, green houses, plant growth rooms, soil bins, a machinery shop, storage area, and a location for field plot experiments.

These highly specialized facilities exceed the present financial capabilities of existing individual state research units. Construction costs for such a facility are estimated at $17.2 million. Scientists from the U.S.D.A.'s Science and Education Administration

Soil and Water Management Unit at Ames near the university are already working on a related soil and tillage problem, and would be able to provide a nucleus for building a strong tilth research program.

Exhibit A, dated March 1, 1983, indicates cost estimates for a National Soil Tilth Center at Iowa State University.

As supporting evidence for the need for a Soil Tilth Center, the reasons why Congress should give this high priority, and why this type of facility would best be located on the Iowa State University campus, I am providing statements adapted from testimony presented by Dr. George Keyworth II, Science Advisor to the President and Director, Office of Science and Technology Policy. Dr. Keyworth provided testimony to the Committee on Science and Technology, United States House of Representatives, Hearings on Science Policy, February 3, 1983.

As I have indicated, these statements are adapted from information Keyworth presented to the committee on the role of the federal government in research and development with special focus on defense, high tech industrial development, space, human health, basic research, and scientific manpower training in the physical sciences and engineering. While the testimony was given to support these particular research and development thrusts, the logic is equally applicable to the reasons why Congress should proceed to fund the construction and staffing of a Soil Tilth Center at Iowa State.

It seems abundantly clear that as the Iowa farmer tools up to literally discard the moldboard plow in order to maintain the productivity of his natural resource base (soil and water), it is paramount that the basic research necessary to understand soil tilth is a very high research and development priority. Not only is this research imperative to understanding the intricacies of the effect of soil tilth on seed germination, stand establishment, root growth and development, nutrient exchange, and water movement, but it is equally important to the design of new conservation tillage systems that will hold the soil in place. Maintenance and improvement in the quality of our environment therefore is an additional reason for supporting the establishment of a National Soil Tilth Center in America's heartland.

Statements by Dr. George Keyworth presented before House Committee on Science and Technology, February 3, 1983.

"I emphasized that the Administration would look very hard at how science and technology could help advance national well-being.:

> Comment: What better way to help national well-being than to conserve our natural resource base - our soils and water, and at the same time improve the quality of our environment.

"All of us have a responsibility to make sure the nation gets the best possible return on its federal investments in science and technology."

> Comment: Establishing a Soil Tilth Center on the campus of Iowa State University reaffirms a commitment to the research partnership identified in the farm bill. It would strengthen an already close working partnership to focus on a basic understanding of soil structure, plant growth, and nutrient/water exchange.

"How else do we assure the best return on our investment?... that means stimulating greater interaction of academic, federal, and industrial scientists and engineers, and making sure the best research and development is supported well enough to permit rapid progress."

> Comment: The need for this facility was identified in 1959 by a committee of leading scientists appointed by the Secretary of Agriculture in accordance with a request by the Senate Committee on Appropriations. The need today is even more critical as we witness increasing soil losses and siltation in an area of the United States where "the intensive inter-tilled cropping patterns leave the land exposed to erosion during critical periods." The national research and development laboratory would be located in the center of a major soil resource area, heavily devoted to field crop production, and one which is generally representative of the soil problems in the corn belt. In addition, many of the major machinery/implement companies are located within the geographic area.

"We must have to make sure that we derive educational and training advantages from federally supported research - because all of our expectations and opportunities for industrial progress call for a growing supply of skilled personnel. The most direct way to meet those needs is through university research, which is synonymous with the production of scientific and technical personnel."

> Comment: The U.S.D.A./A.R.S. Office of Higher Education has recently conducted a manpower assessment based on data from the National Center of Education Statistics. This,

> together with a recent survey of A.R.S. employees working on problems of crop production with limited water, showed over 70 involved with irrigation, water catchment, salt accumulation and hydrology. Only two or three of these scientists are concerned with the fundamental aspects of how plant production can be improved with limited water. It is projected that future needs for researchers in the plant/soil sciences will place a critical need for trained scientific manpower when considered with the depletion of university staff. The establishment of a Soil Tilth Center with a staff of 20 scientists, and up to 60 graduate students, would ensure the availability of adequately trained manpower in this critical area of basic research.

"Moreover, research and development is the essential source of knowledge for new industries...and eventually new jobs...so we're confronted with the challenge of using federal research and development programs to achieve maximum impact on our destiny."

> Comment: What greater impact can we have on our destiny than to ensure through science a sustainable agricultural food, feed, and fiber production system in this country. Crops and the animals that are fed by those grains represent our sustenance, our shelter, and our clothes, and our balance of payments. What greater contribution could we make?

"This challenge to focus our attention on the truly serious threats...rather than spread our vigilance unnecessarily broadly... comes up in other kinds of regulated activities."

> Comment" If the loss of soil, the very basis of our existence, and the pollution of our streams and lakes are not serious threats, then I am mistaken. We are talking about a national center to develop a basic understanding of the intricacies of plant growth and development as influenced by soil tilth. It is an area that has too long been overlooked and one which deserves our immediate attention.

Even though the United States has the best technology in the world, the best fertilizers, herbicides, and the most modern equipment, the basic and most important ingredient for providing abundant food to feed a hungry world is good soil.

Funding for the construction and operation of the Soil Tilth Center will be a significant step toward preserving our nation's good topsoil.

FUNDING FOR PSEUDORABIES ERADICATION PROGRAM

Mr. Chairman, I also appreciate the opportunity to appear before you and support the request of Iowa's pork producers and pork producers from all of our states in requesting funding for the continuation of "pilot project" programs for eradication of the swine disease, pseudorabies.

I have been hearing about this swine disease for several years. Apparently, there was no consensus on how to approach it until one and a half years ago when all segments of the industry agreed on these so-called pilot project programs.

These pilot projects, to be carried out in five states, will utilize all available methods and techniques to control the disease. The objective will be to determine whether it can be eradicated from an area using one or more of these approaches. Iowa is well along in the inauguration of one of these projects.

This is possible because the National Pork Producers Council challenged the U.S. Department of Agriculture to provide funds to launch these programs in FY83. The department accepted the challenge and several of these projects will get under way during the next few months. The money and effort expended this year will be of little value if the projects are not continued during FY84. The Administration's FY84 budget proposed $276,000 for the pseudorabies program. This figure is simply inadequate to fund an effective pseudorabies eradication program. Our nation's pork producers deserve a more comprehensive funding program.

I understand that your committee has been supplied with a breakdown of how much federal money is needed to assist each state wishing to have a pilot project. I am told the total request is for the line item for pseudorabies to be increased to $2.66 million for FY84. This will make it possible to continue the projects begun in FY83.

Pseudorabies, which is also called PRV, is also known as Mad Itch in cattle and sheep, and can be an explosive disease in young swine and cattle. The most severe losses in swine usually occur at the time pigs are being born, and can cause heavy death losses of baby pigs. While the disease has been recognized for a hundred years or longer, it has become a major swine disease during the past 15-20 years. The seriousness of the disease may be related to the intensity of swine production, that is, large numbers in certain areas and confinement rearing. This may be the reason it is especially burdensome to our Iowa producers.

I understand that the U.S.D.A. has had a regulation governing the interstate movement of swine for several years. Hog raisers who produce for slaughter are affected very little by these regulations because vaccination can be used. But producers of breeding animals are greatly restricted from selling animals if their herds become infected. Herds must be quarantined until testing proves herds are disease free. Breeding animal producers cannot use current vaccines without having their herds test positive.

Because of this unequal effect of the only government program, the interstate regulation, PRV has become a controversial and emotional issue among our swine producers. There are strong demands to eliminate the interstate regulations, and equally strong demands for the "free" areas to maintain their "free" status. Unless there is real hope that the disease can be effectively controlled or even eradicated, it is difficult to defend retaining the regulations and having the restrictions on the unfortunate producer whose herds become infected.

This accounts for the popularity of the so-called pilot projects. These projects will test various procedures such as vaccination, blood testing, skin testing, and clean up procedures. Based upon the results of these pilot projects, it is expected that procedures for the effective control and eventual eradication can be developed.

It has been estimated that PRV is costing swine producers $35 million a year. Any increased cost of production not only reduces the profitability of pork production, but also raises the cost of food for consumers. If the disease goes unchecked, the losses will become much greater and could substantially affect the cost of pork to consumers.

This is why it is urgent to activate these pilot projects. Five states have volunteered them (Iowa, Illinois, North Carolina, Pennsylvania, Wisconsin). Plans for carrying them out have been developed, and with the assistance of federal funds, they can be implemented and tested.

The National Pork Producers Council has offered $100,000 and the U.S.D.A. has diverted $400,000 for the pilot projects in Iowa and Illinois in FY83. The U.S.D.A. also has funds available to assist the other states during FY83.

Unless money is made available to continue these projects in FY84, the money and effort expended in FY83 will be of little value. Therefore, it is urgent that Congress appropriate $2.66 million in FY84 for the continuation of these projects. This includes the $276,000 in the budget for PRV.

The FY83 report of the House Appropriations Committee stated, "The pilot projects seem to have merit, but since the department did not request funds for them in the FY83 budget, we did not provide funds for them." The committee also urged the industry and the department to fund these projects in FY83. Now that this has been done, it is important that the Appropriations Committee provide funds to keep them going in FY84.

EXHIBIT A

Honorable Roger Jepsen
The United States Senate
5327 Dirksen
Senate Office Building
Washington, D.C. 20515

Attention: Mr. Mike Neruda

Dear Senator Jepsen:

A soil tilth laboratory has been proposed for the Corn Belt since the publication of Senate Document 59, "Facility Needs-Soil and Water Conservation Research" in September 9, 1959. The Iowa State University has expressed an interest in having the Laboratory located on the campus. The need for such a laboratory facility has been documented many times and most recently in the attached brochure.

The planning has been for adequate laboratory, office and shop space for 20 scientists with supporting personnel. These include 20 technicians, six secretaries and stenographers, 30 graduate students who are doctoral candidates, and 30 graduate students who are master's degree candidates. It is estimated that these will require an office-laboratory building ranging from 50,568-78,848* gross square feet of which 30,341 to 47,309 square feet is net usable space.

The following is a presentation of costs by years assuming that planning begins in 1983 for construction to start in 1984 and completed early in 1986.

1983

Planning (7% of est. cost)	$ 1,048,648
Razing present buildings	109,000
Survey and Soil Testing	21,000
Total for 1983	$ 1,178,648

*depending on greenhouse construction and government building requirements.

1984

Utility extension	$ 100,000
Contingency fund @ 5%	749,006
Physical Plant supervision	30,000
One-third of construction cost	4,992,874
Total for 1984	$ 5,871,880

1985

Physical Plant supervision	$ 35,000
One-half of construction cost	7,490,060
Total for 1985	$ 7,525,060

1986

Physical Plant supervision	$ 12,000
Landscaping	21,000
Fine arts component @ 0.5%	74,901
One-sixth of construction cost	2,497,186
Total for 1986	$ 2,605,087
Grand Total	$17,180,675

The above costs are estimated from current experience on the campus at Iowa State University and are based also upon a major laboratory-office building currently being designed for building during the same period of time. I feel that this is as close to the estimate as I can come in the absence of more detailed information.

The intent always has been that staffing would be by the United States Department of Agriculture, Agricultural Research Service. The most recent estimate of personnel costs which I have heard from USDA-ARS is $150,000 per scientist year equivalent. It is my understanding that this includes the salary and benefits for the scientist with the same for supporting personnel needed to make the scientist fully effective.

Given this figure, the annual cost of operations would begin at $3,000,000 annually beginning in 1983. The annual cost by 1986, the anticipated completion date of the structure, would likely be higher.

The Iowa State University has a highly competent staff in the University Architect's office as well as in the Physical Plant. The university would prefer to be in charge of the total planning and building operation under some type of cooperative agreement. The reason being that the structure needs to conform, architecturally and functionally to university standards and blend with the appearance of other structures in the vicinity. This can be best achieved by university control. As a minimum, the university would need to be involved as a partner in all planning, development and construction to coordinate land needs and the appearance of the structure on the landscape.

My letter is intended as the best current estimate of the construction and operating costs for a soil laboratory facility located on the Iowa State University campus. Final negotiations and commitments can be made only upon recommendation by President W. Robert Parks and confirmed by the Iowa Board of Regents.

Respectfully submitted,

John Pesek

John Pesek
C. F. Curtiss Distinguished Professor and Head

Senator COCHRAN. Welcome, Dr. Mahlstede.

Dr. MAHLSTEDE. Thank you, sir.

Thank you, Senator, and your committee, for the opportunity to provide testimony on the need to establish a soil tilth center and to locate the facility at Iowa State University.

Many changes occur in soils after they are brought under cultivation. One of major importance and which is poorly understood is soil tilth. There has been a serious deterioration in the soil tilth of our most productive soils independent of some of the other changes in cultivated soils. But we have not yet learned to deal effectively with the restoration of soil tilth as we have with the restoration of fertility and maintenance of soil conservation, for example. And tilth is influential to both of these important crop production factors.

Soils in good tilth are highly productive, because plant establishment in them is easy and plant roots are able to explore the whole soil profile more easily and absorb nutrients and moisture in a larger rooting zone. Water absorption rate is rapid. This leads to lessening the erosion hazard and also to a better quality of water moving into our streams. Cost of machinery operations is reduced by good tilth, because draft is lower. Soil tilth has a bearing upon every person who produces crops, lawns, gardens, trees or depends upon them.

A soil tilth center is needed in the corn belt not only because it is the most productive region of its size on the continent and in the world, but also because the proportion of land under cultivation is greater here than in any other major region in this country. Further deterioration of the tilth of corn belt and other similar soils, therefore, would cause a great negative impact on agriculture as a whole. Conversely, any improvements which we learn to make in the tilth of soils in the north central region will have a significant positive impact upon potential agricultural productivity of this country.

Iowa State University is a broad-based land-grant university which has gained international recognition for its research in soils, crops, livestock disease, agricultural economics, and climatology. The Iowa Agriculture and Home Economics Experiment Station has a significant number of highly qualified soil scientists, agronomists and agricultural engineers who would nurture the establishment and development of a soil tilth center. A number of these are already part of the U.S. Department of Agriculture, Agricultural Research Service staff housed on the campus. The State and Federal research scientists have a long history of excellent working relationships at this institution.

At this point, Mr. Chairman, I would like to divert from the testimony as presented and make a few comments relative to this issue.

As you know, Senate Document 59, which nearly 25 years ago reported on the long-range needs for soil and water conservation research in the country, was the result of the work of a peer review group of scientists appointed by the then-Secretary of Agriculture, E. T. Benson. This study was a result of the request by the Committee on Appropriations of the U.S. Senate. Dr. George Browning, my predecessor at the Iowa Agriculture Experiment Station, was a member of the three-man committee appointed to make this study which involved more than 300 scientists, and involved more that 14 public hearings throughout this country.

Soil tilth essentially is a qualitative term used to describe soil structure. It is, in fact, why we ask and request that a national center be established to determine and quantify soil tilth, what it means in terms of our soil conservation practices, and what it means in terms of soil erosion. Perhaps there has been no comparable time in our history or one that is so critical to our national needs and the state of agriculture today than the transition that is taking place in the countryside in terms of production management systems. As a plow is put in mothballs or allowed to rust and conservation no till becomes a science of practice, our farmers and the future of our sons and daughters will be greatly impacted by this kind of work.

This commitment is in the preservation of our natural resource base—our soils and our waters—and one which will result in a stable agricultural production base and a reliable system for producing food, feed, and fiber in the years ahead.

We are talking about our topsoil and the production of horizons of our soil breed. This involves seed bed, roots, nutrients, and water relationships and the capacity of air soil aerations. It involves the microflora, fungi, and bacteria functions of soil insects that convert crop residues into organic matters, resulting in good soil tilth.

I wholeheartedly support the President's Science Adviser, Dr. Keyworth, in his testimony to the House in February, when he made the comment relative to the need for the Federal Government to support our R&D and its involvement and its location on our State colleges and university campuses, with the interaction between the partnership of USDA/ARS and Department of the Interior scientists with our cadre of soil scientists, in this case, working intervals, working relationship, a place where there are some 24,000 students and graduates to work on these kinds of issues. What we are discussing this morning is the Corn Belt's No. 1 industry—agriculture. It is high technology; it is biotechnology; it is basic science. It does speak to a national need. It is cost effective. It speaks to our future as a nation and as a community of nations.

Mr. Chairman, I would like to provide you with an example of what I am talking about, if I may. I mentioned organic matter. This is compost. We are talking about the residue that forms the thatch on our lawns; we are talking about the residue that forms the mulch on the top of our soils today in most of the Corn Belt; we are talking about cornstalk and soybean residue, incorporation of those plant parts into the topsoil to maintain the productive capacity of those soils as a result of the interaction of climate and microflora that are available.

Thank you, Senator for the opportunity to be here.

Senator Cochran. Thank you, Dr. Mahlstede. We appreciate your testimony, and your prepared testimony will be made a part of the record.

[The statement follows:]

STATEMENT OF DR. JOHN P. MAHLSTEDE

CHAIRMAN COCHRAN AND MEMBERS OF THE SUBCOMMITTEE:

THANK YOU SENATOR COCHRAN AND MEMBERS OF YOUR COMMITTEE FOR THE OPPORTUNITY TO PROVIDE TESTIMONY ON THE NEED TO ESTABLISH A SOIL TILTH CENTER AND TO LOCATE THIS FACILITY AT IOWA STATE UNIVERSITY.

MANY CHANGES OCCUR IN SOILS AFTER THEY ARE BROUGHT UNDER CULTIVATION. ONE OF MAJOR IMPORTANCE AND WHICH IS POORLY UNDERSTOOD IS SOIL TILTH. THERE HAS BEEN A SERIOUS DETERIORATION IN THE SOIL TILTH OF OUR MOST PRODUCTIVE SOILS INDEPENDENT OF SOME OF THE OTHER CHANGES IN CULTIVATED SOILS. BUT WE HAVE NOT YET LEARNED TO DEAL EFFECTIVELY WITH THE RESTORATION OF SOIL TILTH AS WE HAVE WITH THE RESTORATION OF FERTILITY AND SOIL CONSERVATION, FOR EXAMPLE. AND TILTH IS INFLUENTIAL TO BOTH OF THESE IMPORTANT CROP PRODUCTION FACTORS.

SOILS IN GOOD TILTH ARE HIGHLY PRODUCTIVE BECAUSE PLANT ESTABLISHMENT IN THEM IS EASY AND PLANT ROOTS ARE ABLE TO EXPLORE THE WHOLE SOIL PROFILE MORE EASILY AND ABSORB NUTRIENTS AND MOISTURE IN A LARGER ROOTING ZONE. WATER ABSORPTION RATE IS RAPID. THIS LEADS TO LESSENING THE EROSION HAZARD AND ALSO TO A BETTER QUALITY OF WATER MOVING INTO OUR STREAMS. COST OF MACHINERY OPERATIONS IS REDUCED BY GOOD TILTH BECAUSE DRAFT IS LOWER. SOIL TILTH HAS A BEARING UPON EVERY PERSON WHO PRODUCES CROPS, LAWNS, GARDENS, TREES OR DEPENDS UPON THEM.

A SOIL TILTH CENTER IS NEEDED IN THE CORN BELT NOT ONLY BECAUSE IT IS THE MOST PRODUCTIVE REGION OF ITS SIZE ON THE CONTINENT AND IN THE WORLD, BUT ALSO BECAUSE THE PROPORTION OF LAND UNDER CULTIVATION IS GREATER HERE THAN IN ANY OTHER MAJOR REGION IN THIS COUNTRY. FURTHER DETERIORAtion of the tilth of Corn Belt and other similar soils, therefore, would cause a great negative impact on agriculture as a whole. Conversely, any improvements which we learn to make in the tilth of soils in the North Central Region, will have a significant positive impact upon potential agricultural productivity of this country.

Iowa State University is a broad-based Land-Grant University which has gained international recognition for its research in soils, crops, livestock, agricultural economics and climatology. The Iowa Agriculture and Home Economics Experiment Station has a significant number of highly qualified soil scientists, agronomists and agricultural engineers who could nurture the establishment and development of a Soil Tilth Center. A number of these are already part of the United States Department of Agriculture, Agricultural Research Service staff housed on the campus. The state and federal research scientists have a long history of excellent working relationships at this institution.

The Corn Belt simultaneously is the foundation and the keystone of agricultural productivity of the United States. A preponderant part of national corn and soybean production and the major part of pork and beef output occur in this North Central Region. Significant parts of our milk, wheat, oats and other food and feed crops also originate here.

The agricultural export trade of the United States depends upon the soybeans and corn produced in the Corn Belt for most of its volume of oilseed and feed grain supply. In fact, the whole world depends upon the "breadbasket" on the North American continent.

Iowa and Iowa State University are ideal locations for such a major research thrust in crop agriculture. The state is clearly a leader in corn production, devoting more than one-third of its total surface area annually to that one crop alone. It is one of the two leading states in soybean production with almost one-fourth of its acreage in that crop. Consequently, it has a greater proportion of its total acreage in row crops than any state in the U.S. Moreover, it is the most important pork producing state, contributing upwards of one-fourth of U.S. supplies.

This means that there is a great opportunity for the interaction of the present faculty and the research scientists in a new center. The University also has to offer one of the outstanding agricultural libraries of the world for use by scientists in all pursuits. In addition, the University is interested in making available a campus site for the establishment of the center and other services potentially associated with it.

Soil tilth is a qualitative term used to describe soil conditions which relate to favorable plant growth and water movement. We shall have to establish quantitative dimensions for it before we can make major progress in its directed improvement.

The area of soils which form hard crusts, compact easily and resist water infiltration, thus inducing runoff and erosion, seems to be growing. These induced undesirable soil properties need to be ameliorated in order to permit further yield increases or even avoid crop yield reductions in the future.

LEARNING HOW TO DEVELOP AND MAINTAIN WELL-AGGREGATED GRANULAR SOILS WHICH RESIST COMPACTION AND ABSORB AND STORE WATER READILY ARE SIGNIFICANT OBJECTIVES OF SOIL TILTH RESEARCH. THESE SOIL PROPERTIES WILL LEAD TO REDUCTION IN EROSION, FLOODING, SILTATION AND HIGHER SUSTAINED YIELDS.

IT IS BELIEVED BY MANY, WITH SOME EVIDENCE, THAT YIELD INCREASES ARE LEVELING OFF IN SPITE OF BETTER TECHNOLOGY. IT IS FURTHER BELIEVED THAT SOIL EROSION IS INCREASING DUE TO MORE UNCONTROLLED RUNOFF WATER. THIS LEADS TO POLLUTION OF SURFACE WATER, GREATER DIFFICULTIES IN TILLAGE, PLANTING AND STAND ESTABLISHMENT, AND LOSS OF PLANT NUTRIENTS AND ORGANIC MATTER.

PERHAPS THE GREATEST CONTRIBUTION WHICH IMPROVEMENTS IN SOIL TILTH COULD HAVE WOULD BE IN THE PREVENTION OF EROSION. THE INTENSIVE TRADITIONAL CULTIVATION METHODS USED EXTENSIVELY FOR A CENTURY OR MORE HAVE CONTRIBUTED TO A DECLINE IN SOIL TILTH IN PART BECAUSE OF ORGANIC MATTER DISAPPEARANCE.

THE NEW CONSERVATION TILLAGE PROCEDURES EMPHASIZING CROP RESIDUE MANAGEMENT MIGHT OFFER THE BEST PROMISE OF POTENTIAL SOIL TILTH IMPROVEMENT THAT WE HAVE EVER HAD. WE NEED TO KNOW THE RELATIONSHIPS INVOLVED IN THE ACCELERATION OF RETURN TO MORE FAVORABLE TILTH. THIS MIGHT PLAY AN IMPORTANT ROLE IN PROVIDING FOR EVEN GREATER EFFECTIVENESS OF SUCH TESTED AND EFFECTIVE SOIL CONSERVATION METHODS LIKE CONTOURING, STRIP-CROPPING, TERRACING AND CROP ROTATION.

CLOSELY ASSOCIATED WITH ITS INFLUENCE ON EROSION, SOIL TILTH WOULD PROVIDE FOR IMPROVED WATER QUALITY BECAUSE THERE WILL BE LESS WATER RUNOFF TO CARRY SILT, AND MORE WATER

WILL, THEREFORE, PERCOLATE THROUGH THE SOIL AND PROVIDE MORE GROUNDWATER FLOW TO THE STREAMS. NOT ONLY WILL THE STREAMS RECEIVE CLEANER WATER BUT THEY WILL RECEIVE A MORE STEADY AND CONTINUOUS WATER SUPPLY THROUGHOUT THE YEAR.

A RELATED BENEFIT WILL BE THAT MORE PLANT NUTRIENTS WILL REMAIN IN THE SOIL AND BE HELD FOR LATER PLANT UPTAKE AND FOR VARIOUS PESTICIDES TO REMAIN IN PLACE WHERE THEY ARE NEEDED FOR THE CONTROL OF PESTS. THIS WILL ENABLE NATURAL BIOLOGICAL PROCESSES IN SOILS TO DETOXIFY AND EVENTUALLY TO DECOMPOSE THEM WHERE THEY ARE USED. EVERYONE DEPENDING UPON SURFACE WATER WOULD BENEFIT BECAUSE OF LESS COSTLY WATER PURIFICATION PROCEDURES, THE LONGER-LIVED CAPACITY OF IMPOUNDMENTS, AND HIGHER PRODUCTIVITY OF THE AQUATIC HABITATS.

THE HIGH COST OF FUEL AND OTHER FORMS OF ENERGY HAS EMPHASIZED THE NEED FOR PRACTICES WHICH REDUCE FUEL CONSUMPTION. GOOD SOIL TILTH CONTRIBUTES TO SUCH FUEL SAVINGS BECAUSE OF THE EASE OF OPERATION AND THE GREATER EFFECTIVENESS OF MACHINES WHICH ARE DESIGNED BASICALLY FOR MELLOW SOIL CONDITIONS. THE OTHER SIDE OF THE COIN REFLECTS THE LACK OF INFORMATION WHICH WE HAVE ON HOW THE TILLAGE OPERATIONS THEMSELVES CONTRIBUTE TO POOR TILTH BY ACCELERATING ORGANIC MATTER DISAPPEARANCE, AND SOIL COMPACTION ON ONE HAND AND LOOSENING ON THE OTHER, EACH OF WHICH CAUSES UNDESIRABLE RESULTS.

EFFECTIVE MACHINERY OPERATION CONTRIBUTES TO BETTER PLANT EMERGENCE AND STAND ESTABLISHMENT. THIS IN TURN WOULD REDUCE THE COST OF SEED AND OTHER OPERATIONS RELATED TO PLANTING AND EVEN AVOID THE NEED TO REPLANT. HARVEST OPERATIONS SHOULD BE MADE EASIER AS A RESULT OF BETTER TRACTION FOR HARVESTING EQUIPMENT.

MUCH LAND IS CONVERTED TO NON-CROP USES EVERY YEAR. ESTIMATES ARE THAT IN EXCESS OF ONE MILLION ACRES ANNUALLY MOVE INTO URBAN EXPANSION, TRANSPORTATION, RESERVOIRS, RECREATION AND INDUSTRIAL DEVELOPMENTS. SIGNIFICANT PARTS OF THIS LAND END UP IN LANDSCAPE PLANTINGS, GARDENS, LAWNS, GREEN SPACES AND TREES. SOIL TILTH EFFECTS THE USEFULNESS OF THESE AREAS FOR BOTH THE PLANTS AND THE PEOPLE ENJOYING THEM.

A MAJOR SUDDEN SOIL TILTH CHANGE IS CAUSED BY MACHINERY INVOLVED IN SITE PREPARATION FOR HOMES, BUILDINGS, AND HIGHWAYS AND IN SURFACE MINING. RESTORATION OF SOIL TILTH IS A CHALLENGE IN ALL CASES BUT IT IS PERHAPS MOST CHALLENGING FOLLOWING MINING OPERATIONS WHERE IT IS DESIRABLE TO RETURN THE LAND TO PRODUCTIVE AGRICULTURAL USES AS QUICKLY AS POSSIBLE AFTER MINING.

THE ULTIMATE GOAL OF SOIL TILTH IMPROVEMENT IS THE MAINTENANCE OF SOIL PRODUCTIVITY WITHOUT ADDITIONAL TECHNOLOGY, OR MAINTAINING THE POTENTIAL FOR IMPROVED PRODUCTIVITY OF CROPS WITH NEW TECHNOLOGY DEVELOPMENT. WHILE THE FORMER IS IMPORTANT IN THE SHORT RUN, THE LATTER IS PARAMOUNT IN THE LONG RUN. EVEN THOUGH WE HAVE MORE CROP PRODUCTION TODAY THAN CAN BE USED IMMEDIATELY, CONTINUED INCREASES IN THE NATIONAL AND WORLD POPULATIONS WILL ASSURE AN EVER-INCREASING NEED FOR FOOD. WE EXPECT AN INCREASING NEED FOR PRODUCTION OF NON-FOOD AND NON-FEED CROPS TOO.

THE ANTICIPATED INCREASING NEED FOR PLANT PRODUCTS AFTER THE TURN OF THE CENTURY CANNOT BE SATISFIED BY BRINGING MUCH MORE LAND UNDER CULTIVATION OR BY COVERTING EVEN MORE MARGINAL LANDS FOR CROPPING TO MORE SELECT PLANT SPECIES. WE CAN BE

ASSURED OF ABUNDANCE ONLY BY LEARNING HOW TO PROTECT AND IMPROVE OUR SOIL RESOURCE SO IMPROVING AGRICULTURAL TECHNOLOGY CAN BE MOST EFFECTIVE.

ONE OF THE MOST OBVIOUS SOIL CHANGES WHICH HAS BEEN CORRELATED WITH SOIL TILTH DECLINE IS THE REDUCTION OF ORGANIC MATTER CONTENT. WE ALSO KNOW THAT SOILS WHICH STARTED WITH LESS NATIVE ORGANIC MATTER HAVE GREATER TILTH PROBLEMS. YET, THE TOTAL ROLE OF ORGANIC MATTER IN SOIL TILTH HAS NOT BEEN ELABORATED. THIS RELATIONSHIP NEEDS TO BE STUDIED AS DOES THE RELATIONSHIP OF RESIDUES RETURNED TO THE SOIL AND THE INFLUENCE OF TILLAGE PRACTICES ON FRESH OR NEW ORGANIC MATTER ACCUMULATION.

THE RESEARCH ACTIVITIES ASSOCIATED WITH A SOIL TILTH CENTER WILL BE CONCERNED WITH THE BASIC UNDERSTANDING OF COMPLEX PHYSICAL, CHEMICAL AND BIOLOGICAL INTERACTIONS IN MAINTAINING OR CHANGING SOIL TILTH. THIS INFORMATION IS NEEDED TO UNDERSTAND HOW SOIL MANIPULATION AND OTHER PRODUCTION PRACTICES AFFECT SOIL TILTH. THE COMPLETE RESEARCH THRUST CAN BE SPECIFIED ONLY AFTER A CENTER STAFF IS ASSEMBLED AND STARTS TO WORK. NEVERTHELESS, THE FOLLOWING ARE SOME THOUGHTS ON WHAT WOULD BE DONE.

THE CENTRAL PART OF THE RESEARCH THRUST WILL BE TO STUDY AGGREGATION BECAUSE IT SEEMS TO BE A DOMINANT PREREQUISITE FOR GOOD TILTH. IT IS IMPORTANT TO UNDERSTAND THE FORCES WHICH BIND SOIL PARTICLES TOGETHER TO CREATE A STABLE GRANULAR STRUCTURE AND, THUS, GOOD SOIL TILTH. AS INDICATED EARLIER, MUCH EMPHASIS SHALL BE PLACED UPON A QUANTITATIVE DEFINITION OF THIS CONDITION.

ORGANIC SOIL CONSTITUENTS AND HIGH MICROBIAL ACTIVITY ARE USUALLY PRESENT WHERE GOOD SOIL TILTH OCCURS. SOME OF THE RESEARCH WILL BE DEVOTED TO A STUDY OF THE ORGANIC CONSTITUENTS AND THE MICROBIAL TRANSFORMATIONS WHICH ARE RESPONSIBLE FOR THE IMPROVEMENT OF TILTH OR FOR ITS MAINTENANCE. THIS WILL INCLUDE STUDIES WITH CROP RESIDUES, ANIMAL MANURES AND OTHER WASTES AND THE INFLUENCE OF THESE ON THE MICROCLIMATE AT THE SOIL SURFACE AND IN ORGANIC MATTER BUILDUP.

ROOTS ARE THE CRITICAL PLANT ORGANS WHICH INTERFACE WITH THE SOIL AND ITS CONSTITUENTS. STUDIES WILL BE CONDUCTED TO DETERMINE HOW SOIL TILTH AIDS IN ROOT RAMIFICATION AND DEPTH OF PENETRATION AND HOW IT AFFECTS THE ABILITY OF ROOTS TO EXTRACT MOISTURE AND PLANT NUTRIENTS. INCLUDED WILL BE THE WATER INTAKE AT THE SOIL SURFACE, AND ITS MOVEMENT WITHIN AND THROUGH THE PROFILE, INCLUDING DRAINAGE AND EVAPORATION.

AN EXPECTED BENEFIT OF IMPROVED SOIL TILTH WILL BE A GREATER EASE IN REDUCING SOIL EROSION. ONE OF THE IMPORTANT QUESTIONS TO BE ANSWERED IS WHETHER TILTH IN ITSELF REDUCES EROSION BY REDUCING DETACHMENT OF SOIL PARTICLES BY RAIN DROPS, OR WHETHER A REDUCTION IN WATER RUNOFF DUE TO MORE RAPID INFILTRATION IS ALSO A NECESSARY CONDITION. ANOTHER QUESTION IS JUST HOW MUCH IS WATER QUALITY IMPROVED WITH REGARD TO CONTAMINATION WITH SOIL, PLANT NUTRIENTS AND CHEMICALS USED IN AGRICULTURAL PRODUCTION.

NO DOUBT SOIL TILTH WILL INFLUENCE THE NEWLY EMERGING INTEGRATED PEST MANAGEMENT PRACTICE SYSTEMS. THUS, IT IS IMPORTANT TO DETERMINE HOW WEEDS, DISEASES AND INSECTS ARE AFFECTED BY THE NEW ENVIRONMENT.

The expected influence of soil tilth upon machinery and fuel needs and the effect of machines on soil tilth have been mentioned before. Information on these relationships operating in both directions will be collected to assure better matching of machinery and its operations to soils.

The facilities required to conduct this complex research in soil tilth include offices, laboratories, greenhouses, plant growth chambers, soil bins, machine shops and storage, and field plots. These will have to be specialized for this particular research and means that most will have to be provided from new sources.

The scientific staff will include soil scientists specializing in physics, chemistry, management, morphology, genesis, agronomists, plant physiologists, microbiologists, agricultural engineers, economists, hydrologists and related disciplines. They would have counterparts who already are members of the Iowa State University faculty and the United States Department of Agriculture staff of scientists located at Ames.

The center located in Iowa would be in the midst of a major soil resource area devoted heavily to field crop production and which is generally representative of the soil problems in the Corn Belt and related soils in the North Central Region. They are distinctly different from those in other parts of the country. The soils and the climatic area represented are of major significance in food production for the whole world.

The Iowa State University is interested and could make space available for the placement of a soil tilth center laboratory and office building and greenhouses on its campus.

ITS AGRONOMY AND AGRICULTURAL ENGINEERING DEPARTMENTS AND AFFILIATED ORGANIZATIONS HAVE SIGNIFICANT LAND RESOURCES AVAILABLE IN THE IMMEDIATE VICINITY OF THE UNIVERSITY AND SOME COULD BE USED BY MEMBERS OF THE CENTER STAFF.

THE AGRICULTURE AND HOME ECONOMICS EXPERIMENT STATION MAINTAINS A SIGNIFICANT NUMBER OF OUTLYING RESEARCH CENTERS SPECIFICALLY FOR USE BY AGRICULTURAL SCIENTISTS. THESE ALWAYS HAVE BEEN AND WILL CONTINUE TO BE USED BY STATE AND FEDERAL SCIENTISTS WORKING TOGETHER. IN ADDITION, TWO LARGE RESEARCH TRACTS IN SOUTHWESTERN IOWA ARE HELD FOR USDA AND UNIVERSITY USE BY AN AFFILIATED ORGANIZATION. THESE HAVE OVER 15 YEARS OF KNOWN HISTORY OF CROP PRODUCTION AND SOIL MANAGEMENT PRACTICES AND WOULD BE AVAILABLE FOR SOIL TILTH CENTER RESEARCH.

FINALLY, AMES IS READILY ACCESSIBLE BY TWO MAJOR INTERSTATE HIGHWAYS AND PARALLELING U. S. HIGHWAYS, AND TO A COMMERCIAL AIRPORT AN HOUR AWAY, AND SERVED BY FIVE MAJOR AIRLINES AND A NUMBER OF REGIONAL ONES. THE AMES ENVIRONMENT OFFERS MANY SCHOLARLY, CULTURAL AND ENTERTAINMENT OPPORTUNITIES AND EDUCATIONAL, MEDICAL AND RELIGIOUS FACILITIES FOR PROFESSIONALS AND THEIR FAMILIES.

PSEUDORABIES

Senator COCHRAN. Mr. Dee, you may proceed.

Mr. DEE. Thank you, Senator Cochran. I did not try to bring a pig in here. I couldn't get it by security.

We want to thank you for the opportunity to provide testimony on the need for funding pseudorabies pilot projects to determine if pseudorabies, or PRV, can be eradicated.

We pork producers are proud of our record of solving our own problems. This can be evidenced by the $100,000 that we have put up that was matched by the $400,000 from USDA to get our pilot program rolling and get the wheels turning. But I have to be honest. The eradication of pseudorabies is much too big a project for us to do alone. It is a national problem, because USDA has issued regulations regarding interstate movement of swine. It is very important that the industry develop a unified position when we proceed with eradication. Pilot projects will play an important role in determining what will work.

PILOT PROJECTS

My home county, Marshall County, Iowa, is the area set aside and the area that will do the pilot project. I have to tell you that it is an average county from the standpoint of population, with a market of around 200,000 hogs a year. In Marshall County, we have all the different segments of swine production represented, and we also live 30 miles from Iowa State University, which will play an important part in that role.

Our county was first notified of this possibility roughly 30 days ago. The involvement and the participation of our producers, veterinarians, regulatory folks have been absolutely excellent. So, it is very important that we obtain funding in fiscal year 1984 to keep this project going.

We want to thank you for giving us the opportunity to present our views. Hopefully, we can solve this problem together.

SOIL TILTH RESEARCH

Senator COCHRAN. Thank you very much, Mr. Dee.

Dr. Mahlstede, is there research in soil tilth going on anywhere else in the country at this time?

Dr. MAHLSTEDE. There are research scientists working on soil tilth at various locations. We are talking here about a national effort of bringing these kinds of things together—the soil physicists, microbiologists, chemists, along with soils people working in the area in one major undertaking that involves a staff of about 20.

Senator COCHRAN. Has there been any study done by anybody on the feasibility of putting together all the scientists in one research center? Has USDA done any research on it?

Dr. MAHLSTEDE. Yes, sir, they have. As you know, the 6-year plan that USDA/ARS has recently published has gone in the direction of aggregating on a national basis national centers on major efforts on specific topics.

Senator COCHRAN. That is a general principle, but has a specific recommendation been made by the Department that this center be approved and constructed?

Dr. MAHLSTEDE. The Department of Agriculture, since 1959 and 1962 and subsequent years, has supported this needed facility, and this being 1 of 15, 13 of which have been constructed.

FUNDING FOR PSEUDORABIES PROGRAM

Senator COCHRAN. I know, Mr. Dee, that the National Pork Producers will be testifying before the committee before our hearings are concluded. Do you have a recommendation to make to the committee about the appropriate level of funding for the pseudorabies program for next year?

Mr. DEE. I believe they are talking in the area of $2.6 million.

Senator COCHRAN. Would that be matched by any money from the pork producers themselves?

Mr. DEE. I am not sure we would match money. We would provide the pigs, the support, and ammunition to help get this problem carried on through.

Senator COCHRAN. I know from talking to pork producers in my State that this is a problem of immense concern, and I think we do have an obligation to look at this problem very carefully. I am hoping we can come up with some money for the program for this next fiscal year. Your testimony is very helpful to us in that regard.

Mr. DEE. Thank you for the opportunity.

Senator COCHRAN. Thank you both for being here. We appreciate your testimony very much. Your prepared statement will be made a part of the record.

Dr. MAHLSTEDE. Thank you, Senator.

[The statement follows:]

STATEMENT OF ERIC DEE

Mr. Chairman, I thank you for providing me the opportunity to appear before your subcommittee to speak on an issue of great importance to the Iowa Pork Producers Association and the National Pork Producers Council. Our Iowa Association, representing some 50,000 pork producer families, feels very strongly about the need to test the feasibility of elimination of the swine disease pseudorabies, or PRV as it is called. Iowa has had a great deal of experience with PRV, more than any other State, and we know how important test pilot projects are needed at this time. In February of this year, the pilot projects were initiated following a grant provided by the National Pork Producers Council to USDA for the current fiscal year.

While Iowa had already developed and finalized its plan to deal with PRV, following the commitment to fund the pilot projects we began seeking support. We have put strict rules into the program, one of which is in the pilot area which must have the support of 75 percent of the producers and must represent 90 percent of the hogs. In just a few short weeks, progress toward implementing the pilot project in Iowa has proceeded quite rapidly. A total cooperative effort involving pork producers, extension, university technicians, and local, State and Federal veterinarians, has evolved to begin implementation of the program.

This is happening around my home State center in Marshall County, Iowa. Pork producer support has been excellent. The project will be well underway by the end of this fiscal year. However, for any determinable results to be realized, the pilot projects in Iowa and the various other approaches being tested in other States must continue to be funded.

Pork producers have demonstrated their sincerity in the belief that the PRV issue must be dealt with in some manner. Their seed money contribution to the pilot programs, their funding of PRV research at State universities, and their individual support of pilot programs in different areas are evidence of this belief.

The Iowa Pork Producers Association is in support of the National Council's request for the inclusion of a line item in the budget for the purpose of PRV pilot project support. However, if the committee opposes the line item approach, we would encourage the earmarking of funds specifically for use in pilot projects to test the feasibility of elimination of this bothersome and costly swine disease.

I want to thank the committee for giving me this opportunity to present our views.

TEXAS TECH UNIVERSITY

STATEMENT OF SAM E. CURL, DEAN, COLLEGE OF AGRICULTURAL SCIENCES

ACCOMPANIED BY ROBERT C. ALBIN, ASSOCIATE DEAN, COLLEGE OF AGRICULTURAL SCIENCES

Senator COCHRAN. Our next witnesses are from Texas Tech University—Dr. Sam E. Curl, dean of the College of Agricultural Sciences, and Dr. Robert C. Albin, associate dean, College of Agricultural Sciences.

Welcome to the committee. We have your prepared statement, and it will be included in the record. You may proceed.

[The statement follows:]

STATEMENT OF DR. SAM E. CURL

SUMMARY

USDA-AR Plant Stress and Water Conservation Cooperative Research Funding and Construction Authorization for the Plant Stress and Water Conservation Laboratory in cooperation with Texas Tech University and the Texas Agricultural Experiment Station.

SUMMARY OF ACTIONS TO DATE

In fiscal year 1977, Congress appropriated $100,000 to initiate a feasibility study to determine the most appropriate size, program and location for the Plant Stress and Water Conservation Laboratory initially identified in Senate Document 59. That feasibility study was delivered to the Congress in March, 1978. In fiscal year 1979, Congress appropriated $800,000 to initiate planning for the research program and proposed facility in cooperation with Texas Tech University at Lubbock. The research program plan, the facility program amendments and the architectural plans and specifications for Phase I of the laboratory have been completed. A cooperative USDA-AR research unit is in place in Lubbock occupying temporary space on the campus of Texas Tech University and at the Texas Agricultural Experiment Station site north of Lubbock. In fiscal year 1980, Congress appropriated $200,000 to initiate basic research. The Congress appropriated $400,000 for the research program for fiscal year 1981, $450,000 in fiscal year 1982, and $750,000 in fiscal year 1983.

SPECIFIC ACTION REQUESTED OF THE COMMITTEE

It is proposed that Congress continue to recognize the urgency of the research indicated by appropriating funds at the level of $5,750,000 over the current budget allocation of $750,000 ($525,000 Base Funds plus $225,000 Formal Budget Funds) to this project to continue and strengthen the plant stress and water conservation research program. These funds are to be directed for cooperative research in plant stress and water conservation at Lubbock, Texas involving USDA-AR, Texas Tech University and the Texas Agricultural Experiment Station. The funds will be used to increase the research effort and to provide a core of scientists which will form the base for a more comprehensive plant stress and water conservation laboratory which has been planned at Lubbock, Texas.

We further request the Congress to appropriate funding in the amount of $500,000 for completion of architectural and engineering planning for Phase II of the proposed Plant Stress and Water Conservation Laboratory and $21,500,000 for construction of the laboratory. This laboratory would be constructed on a fifty-four acre tract of land on the campus of Texas Tech University. The Board of Regents of Texas Tech University has authorized the lease of this land to the federal government for the purpose indicated. While recognizing the urgency for reduced federal spending, we believe the investment in this facility is one in which very visible and tangible benefits will be realized within a decade. The full thrust of the research program cannot be realized until the highly specialized facilities included in the laboratory are in place and ready for use by the scientists.

The proposed laboratory represents the most advanced architectural and engineering technology available and will be energy efficient and cost effective. An estimated savings of approximately $2,000,000 will be realized if the facility is fully funded in fiscal year 1984. This is not to mention the time saved in accelerating the full scale buildup to attack the urgent problem. Construction cost escalation will likely continue so that a delay beyond fiscal year 1984 would represent a significant increase over the $21,500,000 projected if construction were delayed past December, 1983.

INTRODUCTION

Mr. Chairman, I greatly appreciate the opportunity to appear before the Committee today on behalf of needed agricultural research in the area of plant stress and water conservation. This vitally needed research is encompassed in the comprehensive nationwide research mission of the U. S. Department of Agriculture-Agricultural Research (USDA-AR). An intensified research program will implement the recommendations of the Plant Stress and Soil Water Conservation feasibility study prepared by the USDA-AR.

The background setting for the problem which the proposed research addresses is found in Senate Document 59, the feasibility study conducted by the Science and Education Administration of USDA in 1977, and the statement of Texas Tech University submitted for the record before this committee on March 26, 1979. We will not repeat this information, as we believe the record is replete with scientific and economic documentation which describes the conditions of the region and the research required to seek viable solutions to a complex set of critical problems confronting agriculture and natural resource conservation throughout the Great Plains, the semi-arid southwest and arid and semi-arid lands throughout the world. Water availability and quality continue to be limiting factors affecting the growth and cultivation of existing crop species. This underscores the urgent need for new varieties of drought resistant food and fiber crops for areas where non-rechargeable groundwater reserves are declining, energy costs are increasing, and natural precipitation--even though limited--could be used more efficiently.

The national thrust to seek out all viable strategies for conserving energy in agriculture has amplified the urgency to seek more energy- and water-efficient strains of plant materials and improved soil and water management practices. The need for a comprehensive, multidisciplinary, long-term, basic science research program is obvious. Texas Tech University has taken the lead to work to develop a cooperative program with the U. S. Department of Agriculture-Agricultural Research, the Texas Agricultural Experiment Station, agricultural colleges and universities throughout the region, agricultural producers, the agribusiness industry and private research organizations.

BACKGROUND

The key events involving Texas Tech University which have taken place in conjunction with the development of the research program to date are as follows:

1975-1976 Preliminary discussions with officials of the U. S. Department of Agriculture and members of the Congress.

1977-1978 Congress appropriated $100,000 for a feasibility study. The study team concluded that there was indeed an urgent need for a plant stress and water conservation research program and that Lubbock, Texas, was the ideal location for a laboratory facility. A later decision to locate the facility on the campus of Texas Tech University, in conjunction with the College of Agricultural Sciences, finalized the first major step in the development of the program.

1978-1979 Congress appropriated $800,000 for the preparation of a research program plan and architectural and engineering plans for the appropriate laboratory in which to carry out the proposed research. These plans have now been completed for Phase I. The structure will contain about 67,000 square feet of research space and will cost approximately $22,000,000 ($500,000 additional planning funds + $21,500,000 for construction). The facility contains space for twenty-two scientists, with accompanying greenhouses, headhouses, growth chambers and storage units.

The Science and Education Administration in August, 1979, transferred a USDA scientist (plant physiologist) to Lubbock, Texas, to serve as a cooperative scientist working with Texas Tech and Texas Agricultural Experiment Station scientists on environmental stress mechanisms in sorghum and cotton. Currently, Texas Tech is providing office and laboratory space for three USDA-AR scientists who, together with Texas Tech scientists, are actively working in the research program. In addition, the University provides use of the library, computer and other University facilities as well as extending full faculty privileges to the USDA-AR scientists.

Funding of the Cooperative Plant Stress and Water Conservation Research Program

	Base Funds	Formal Budget Funds	Congressional Add-on Funds	Total Funds
1980	$ -0-	$ -0-	$ 200,000	$ 200,000
1981	200,000	100,000	100,000	400,000
1982	400,000	50,000	-0-	450,000
1983	525,000	225,000	-0-	750,000
1984 REQUEST	525,000	225,000	5,750,000 REQUEST	6,500,000

RESEARCH PROGRAM

RESEARCH ACTIVITY TO DATE

Through fiscal year 1983, Congress has appropriated a total of $1,800,000 for cooperative research in plant stress and water conservation. Scientists from USDA-AR, Texas Tech University, and the Texas Agricultural Experiment Station have initiated studies within the framework of the research program plan developed to guide the orderly, systematic and effective search for the information needed to solve the problems identified in this statement. The research team is making progress in better understanding the relative importance of various developmental and physiological reponses of plants to soil water deficits and to atmospheric drought. A substantial amount of research has been initiated in the genetic improvement of grain sorghum and cotton. These crops can be grown in areas of limited rainfall. Research currently underway includes:

Soil-Root-Water Area: Research projects are designed to define the effect of the soil environment on rooting patterns (depth and root density) of sorghum and cotton as related to soil water extraction and water use efficiency. Soil environment is defined as a function of soil type, soil nutrient status and soil water status. These experiments should provide a definition of the ideal root system necessary to exploit the maximum soil volume with the least expense to the plant in terms of non-harvestable dry matter.

Soil-Plant-Atmosphere Area: Research projects are designed to delineate the major factors involved in determining photosynthesis: transpiration ratios of both sorghum and cotton. The role of the physical environment (evaporative demand and soil water supply) and the plant response (stomatal conductance to water and the photosynthetic rate) will be defined. The research is designed to identify the minimum level of leaf conductance necessary to support maximum photosynthetic activity in each specie under a wide range of soil water conditions.

Physiological Area: Experiments are designed to evaluate the utility of certain drought tolerance mechanisms. Of prime concern is osmotic adjustment resulting in turgor maintenance. The effect of increased osmotica on cellular metabolism is unknown, and will be defined with respect to chloroplast function. The major site of stress effects also will be defined as a function of source activity or sink activity. Important sinks include new leaf development, root development and fruit development. At present we do not know whether environmental stress affects the source directly or if the observed response is due to an indirect effect resulting from reduced sink activity. Prior to exploration of genetic variability and genetic manipulation it is essential to define the site of direct stress effects.

Results from the initial studies are extremely encouraging. This work has been conducted using existing Texas Tech University and Texas Agricultural Experiment Station space and facilities. This represents a substantial effort and demonstrates an extremely efficient use of the federal and state funds expended. Essentially every state in the Great Plains has devoted some scientific effort toward developing technology to conserve our water resources and utilize that water which is available more efficiently in crop production. However, due to the disaggregation of scientists, large environmental differences between research locations, and the diversity of plant responses elicited by water stress, there appear to be no major breakthroughs on the horizon. A unified research effort toward understanding and resolving the problem is necessary. To accomplish this effort, it will require additional funding, scientists and a highly specialized research facility.

With additional funds appropriated by the Congress, the cooperative research program developed by the U. S. Department of Agriculture-Agricultural Research, the College of Agricultural Sciences at Texas Tech University, and the Texas Agricultural Experiment Station will be fully developed.

MAJOR BENEFITS OF THE RESEARCH PROGRAM

1. Substantial reduction in the water and energy requirements for the production of quality food and fiber crops throughout the semi-arid southwest.

2. Development of germplasm of major grain and fiber crops which possesses superior resistance to adverse environmental conditions and yet maintains an inherent high yield potential.

3. Development of the basic principles essential for the design of soil and crop management systems to conserve and make available during the growing season greater amounts of precipitation and to enhance the production of more stress-tolerant plants.

4. Maintenance of a high level of agricultural production throughout the Southern Great Plains, thereby preventing (a) the collapse of an important, highly-developed agricultural region and (b) the attendant economic, social and environmental problems which would ensue.

5. A substantial contribution to the national effort to enhance the productivity of American agriculture, thereby increasing the availability of feed grain and natural fiber commodities for sale to foreign markets.

As water efficiency of the key commodity plants is increased through the research program, less irrigation water per unit of crop yield will be required. Each inch of natural precipitation captured and stored in the soil will be used more efficiently. By substantially reducing the need for irrigation water, fuel and labor costs associate with irrigation will be decreased. If the plants perform under dryland conditions at a higher level of efficiency, the farmer's net earnings, assuming reasonable commodity prices, should be favorable. It is projected that the research encompassed by this program would result in a minimum 15% increase in water use efficiency.

THE PROPOSED LABORATORY

The feasibility study conducted by USDA recommended that a major research effort consisting of a central laboratory and support facilities be located on the campus of Texas Tech University. Three primary research thrusts have been outlined for the

Plant Stress and Water Conservation Research Laboratory with specific objectives defined for each thrust. These are as follows:

Thrust 1 - Characterize the dynamics of the soil-plant-atmosphere continuum.

Thrust 2 - Define environmental stress impact on growth, development and yield, and identify mechanisms which aid plants in tolerating or avoiding environmental stress.

Thrust 3 - Define genetic control of stress mechanisms.

CONCLUSION

The research program and proposed laboratory will require a number of disciplinary teams in areas such as soil physics, soil chemistry, soil classification, plant physiology, plant breeding, agricultural engineering, and other allied areas requiring individual scientist input. This level of activity will allow effective and efficient research activity to focus on critical questions relating to problems of plant stress and water conservation. Because of the complexity of the proposed research, and the resources needed to solve these pressing problems, this program will be of long-term nature. As the program emerges as the national focal point for basic plant stress and water research in agriculture, other relevant problems associated with agricultural production in semi-arid regions will be investigated. With the development of the program, the University will be in a position to invite private industry scientists and research support to join the activity.

Congress, in fiscal year 1977, appropriated $100,000 to initiate a feasibility study to determine the most appropriate size, program and location for the Plant Stress and Water Conservation Laboratory initially identified in Senate Document 59. That feasibility study was delivered to the Congress in March, 1978. In fiscal year 1979, Congress appropriated $800,000 to initiate planning for the research program and proposed facility in cooperation with Texas Tech University at Lubbock. This planning is completed. Architectural plans and specifications for the proposed laboratory have been delivered to the USDA-AR. In fiscal years 1980, 1981, 1982, and 1983, Congress appropriated $200,000, $400,000, $450,000, and $750,000, respectively, for cooperative research in plant stress and water conservation.

It is proposed that Congress continue to recognize the urgency of the research program by appropriating funds at the level of $5,750,000 over the current budget allocation of $750,000 ($525,000 Base Funds plus $225,000 Formal Budget Funds) for this project to continue and strengthen the cooperative plant stress and water conservation research program. This will bring the total research funding for FY 1984 to $6,500,000. It is further requested that the Congress appropriate $500,000 for completion of architectural and engineering planning for Phase II of the proposed Plant Stress and Water Conservation Laboratory and $21,500,000 for the construction of the laboratory in fiscal year 1984 on the land provided by Texas Tech University.

Thank you Mr. Chairman, for your consideration of this proposal.

PLANT STRESS AND WATER CONSERVATION

Dr. CURL. Thank you, Mr. Chairman. I am Sam Curl, dean of the College of Agricultural Sciences at Texas Tech University. With me is Dr. Robert Albin, associate dean and director of research.

We are most appreciative of the opportunity to appear before the committee today on behalf of urgently needed research in the area of plant stress and water conservation.

The background setting for the problem addressed by the cooperative research effort which has been undertaken jointly by USDA, Texas Tech University, and the Texas Agricultural Experiment Station is found in Senate Document 59, the feasibility study conducted by the Science and Education Administration of USDA in 1977, and the statement of Texas Tech University previously presented before this committee. An indepth statement, including an updated report on the progress of research planning and program activities to date, has been submitted for the record.

The Southern State Plains is one of the most intensively developed agricultural regions of the United States. Virtually all of the water presently used to support this agriculture comes from a rapidly declining and virtually nonrechargeable groundwater system, the vast Ogallala aquifer. Estimates of the future life of water supply from this are, for the most part, varying. Many wells in the southern part of the formation are already going dry. In addition, the escalating cost to lift the water has become prohibitive. This underscores the urgent need for research in areas of plant stress and improved water use mechanisms and for the development of agricultural practices for maximizing water use efficiency.

Because the Great Plains region contributes very heavily to total U.S. food and fiber supply, the maintenance of our viability is of obvious importance not only from a domestic point of view, but also with regard to the great volume of U.S. agricultural exports sold on the international market.

BACKGROUND

This committee has shown a concerned interest in the problem we have brought to your attention. In fiscal year 1977, Congress appropriated $100,000 to initiate a feasibility study to determine the most appropriate program and location for the plant stress and water conservation laboratory initially identified in Senate Document 59. That feasibility study was delivered to the Congress in March 1978. In fiscal year 1979, Congress appropriated $800,000 to initiate planning for the research program and proposed facility in cooperation with Texas Tech University in Lubbock. The research program planned for the facility and the architectural plans and specifications for the laboratory have been completed. A cooperative USDA/ARS research unit is in place in Lubbock, occupying space on the campus of the Texas Tech University and Texas Agricultural Experiment Station site north of Lubbock.

In fiscal year 1980, Congress appropriated $200,000 to initiate basic research on the problem. Congress appropriated $400,000 for the research program in fiscal year 1981, $450,000 in fiscal year 1982, and $750,000 for fiscal year 1983. We wish to express our appreciation for your past support which has allowed us to get the research program off the ground and moving in a positive direction.

RESEARCH PROGRAM

The cooperative research program already underway is necessarily limited in scope. What are needed are additional scientific facilities, equipment, and disciplinary specialists. The current level of research activity can be expanded to some extent using resources provided by Texas Tech University and Texas Agricultural Experiment Station. No major effort can be launched without a substantial increase in research program funding and the availability of the highly specialized facility planned for the proposed laboratory. We believe this program and facility should be of top priority. This is not a program dealing with a single crop or crop of local proportion. It represents, rather, a comprehensive investment in the future which will help avert an economic disaster without a portion of the six States wherein a large and significant portion of our present agricultural wealth is found.

RECOMMENDATIONS

We respectfully request the committee for fiscal year 1984 to increase the level of funding for the cooperative research program in plant stress and water conservation at Lubbock, Tex., in the amount of $5,750,000 over the fiscal year 1983 allocation of $750,000. This will bring total research program funding for 1984 to $6,500,000. We further request the committee to authorize funding in the amount of $500,000 for completion of architectural and engineering planning for phase II of the proposed plant stress and water conservation laboratory, and $21,500,000 for the construction of the laboratory as planned on the site made available for lease to the U.S. Department of Agriculture by the Board of Regents of Texas Tech University.

While recognizing the urgency for reduced Federal spending, we believe the investment in this facility is one in which substantial benefits will be realized in decades ahead. Information on the proposed laboratory, including completed architectural design drawings, may be obtained from the Agricultural Research Service.

Chairman Cochran and members of the committee, we appreciate your time and continuing interest in this extremely important research program. Thank you very much.

Senator COCHRAN. Thank you, Dr. Curl.

Dr. Albin, do you have any statement or comments?

Dr. ALBIN. No.

Senator COCHRAN. Has there been any prior action on this by Congress? You say we did appropriate $100,000 in 1977. Has anything happened since then?

Dr. CURL. No; since then, the next year after——

Senator COCHRAN. I see, we appropriated $800,000 in 1980.

Dr. CURL. Let me give you the full run down on that.

In 1980, $200,000; in 1981, $400,000; in 1982, $450,000; and in 1983, $750,000. That followed the $800,000 planning grant for the laboratory. Architectural planning has been completed. The laboratory is ready to be constructed when funds are appropriated by Congress.

Senator COCHRAN. Well, I appreciate so much your being here this morning and bringing us up-to-date on the status of this project. Obviously, this is an area on which we need to put some emphasis. I assure we will carefully consider your recommendations and discuss them in the committee as a part of the appropriations process. Thank you very much for appearing before the committee today.

Dr. CURL. Thank you.

NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

STATEMENT OF R. NEIL SAMPSON, EXECUTIVE VICE PRESIDENT

Senator COCHRAN. Our next witness is the National Association of Conservation Districts, Mr. Neil Sampson, who is executive vice president.

Welcome, Mr. Sampson. Good to see you this morning.

Mr. SAMPSON. Thank you, Mr. Chairman.

I have submitted a statement for the record, and I will not attempt to read from that, but I would like to highlight a few of the points.

[The statement follows:]

STATEMENT OF R. NEIL SAMPSON

AGENCY AND PROGRAM	FY 1983 Appropriations*	FY 1984 Budget	NACD Recommendation (million dollars)
SOIL CONSERVATION SERVICE--USDA			
1.** Technical Assistance	243,104,000	262,871,000	270.0
2. Inventory & Monitoring	19,390,000	14,098,000	14.0
3. Soil Surveys	50,234,000	52,324,000	52.3
4. Snow Surveys	3,742,000	3,843,000	3.8
5. Plant Materials Centers	3,757,000	3,895,000	4.0
6. Resource Appraisal	5,971,000	4,282,000	4.3
7. Total Conservation Operations	326,198,000	341,313,000	348.4
8. Grants to States and Districts	-0-	-0-	15.0
9. Special Areas Cons. Prog.	-0-	-0-	10.0
11. River Basin Surveys	16,068,000	13,264,000	16.0
12. Watershed Planning	8,675,000	7,715,000	9.0
13. Watershed and Flood Prevention Op.	184,925,000	96,593,000	200.0
14. Emergency Program (403)	10,000,000	-0-	10.0
16. Great Plains Cons. Prog.	21,315,000	15,521,000	50.0
17. Resource Cons. & Develop.	25,744,000	-0-	50.0
AGRICULTURAL CONSERVATION AND STABILIZATION SERVICE--USDA			
20. Agricultural Cons. Prog.	190,000,000	56,000,000***	210.0
21. Forestry Incentives Prog.	12,500,000	-0-	13.5
22. Water Bank	8,800,000	-0-	10.0
23. Special Areas Cons. Prog.	-0-	-0-	10.0
24. Colorado River Salinity Prog.		12,550,000	12.5
25. Emergency Cons. Prog. (ECP)	-0-	-0-	-0-
26. ASCS Administrative Cost	34,155,000	34,805,000	34.8
AGRICULTURAL RESEARCH SERVICE--USDA			
28. Soil, Water and Atmospheric Research	63,519,000	64,496,000	67.0
COOPERATIVE STATE RESEARCH SERVICE--USDA			
29. Hatch Act	149,295,000	149,295,000	160.0
30. McIntire-Stennis	12,452,000	12,452,000	13.0
31. Aquaculture Research	518,000	-0-	1.0
EXTENSION SERVICE--USDA			
32. Soil & Water Cons. & Mgmnt.	-0-	-0-	2.0
33. Renewable Resources Ext.	2,000,000	-0-	10.0
FARMER'S HOME ADMINISTRATION--USDA			
39. Rural Community Fire Prot.	3,250,000	-0-	3.5
40. Soil and Water Loans	47,100,000	26,000,000	50.0
SCS Program loans			
41. Watershed Protection and Flood Prevention loans	26,000,000	-0-	26.0
42. RC&D Loans	4,000,000	-0-	5.0

* - Final budgets may change if fund shifts are made in the 1983 budget.

** - See numbered explanatory notes for information about budget items.

*** - Of the $56 million in ACP, the President's budget would allow ASC to use up to $3 million for emergency conservation measures, $3 million for FIP and $2 million for WB.

EXPLANATORY NOTES

Number	Remarks
1.	This recommendation for conservation technical assistance is based on the RCA program projection. Earlier RCA documents indicated that technical assistance should be about 27% of the total RCA-calculated expenditure, and that it should grow at 3 percent per year in real terms.

7. The FY '83 figure does not include $10.4 million for GSA office space, nor does it show the $9.8 million that SCS plans to move from watershed construction to meet pay act costs in Conservation Operations.

8&9. These budget items would be new appropriations to implement Subtitles B and D of Title XV of the 1981 Farm Bill. These programs allow two separate types of "targeting" to emerge within the Department's soil conservation effort. The Grants program would help states and districts carry out activities outlined in state and local long range programs. Because of the matching feature, it would target those states and localities that felt strongly enough about the resource problems facing them that they raised state or local funds in the face of extremely tight budgets. This is an excellent way to "target," and NACD strongly supports this approach as a way to supplement the ongoing technical and financial assistance programs available through USDA.

The Special Areas Conservation Program will give USDA the opportunity to respond to special needs in certain sections of the country. This can allow new program thrusts to focus on areas where high-priority national interests are threatened by the inability of the ongoing conservation programs to adequately help people protect the long-term productivity of the resource base.

10. NACD suggests, in this recommendation, that new targeting efforts within SCS should total around 7 percent of the total in Conservation Operations. In addition, we suggest that the ongoing "targeting" programs of both SCS and ASCS such as GPCP, RC&D, P.L. 566 Watersheds, ACP, FIP, WB, and others (see below) be fully funded or even supplemented as part of the total USDA effort to target toward programs reaching highest priority needs.

15. Water resource programs have been increasingly targeted to land treatment, erosion control, flood prevention and water quality. They provide economic stimulus and jobs in rural areas, and are needed as part of the emerging effort to revitalize America's productivity through upgrading and maintaining necessary irrigation, drainage and water supply infrastructure.

As part of the 1984 budget proposal sent to Congress, President Reagan is proposing to rescind $69 million of 1983 spending authority. NACD opposes such a rescission, and urges USDA to fully and effectively utilize the 1983 spending authority.

16. The Great Plains Conservation Program continues to prove the value of long-term contracts for conservation cost sharing in the 10-state GP area. Congress reauthorized the program in 1980, with the new funding limit raised to $50 million annually. NACD believes this $50 million should be appropriated, as there are farmers and ranchers awaiting funding to participate in the program.

17. There have been repeated attempts by the Administration to phase out of the Resource Conservation & Development (RC&D) program, despite the fact that such a phase-out has been consistently rejected by Congress. The program was re-authorized in the 1981 Farm Bill. NACD believes the Administration should recognize the value of the RC&D and use it for the set-piece in whatever rural development effort USDA can mount under current budget constraints. That the Administration has no intent to follow such a course is shown again, as the President's 1984 budget has proposed a rescission of $5.6 million from the authorized 1983 budget and a zero budget for 1984.

NACD will support Congressional action to reject the proposed rescission, and provide increased RC&D funding, along with language in the 1984 Appropriations Act that, again, clearly prohibits the Administration from carrying out any sort of phase-out of the program.

23. Inflation has cut the buying power of federal cost sharing for soil and water conservation measures by about 50 percent since 1970, in spite of the addition of new programs. NACD believes that this funding level is far too low in view of the urgent need to get additional soil and water conservation on the land, and in view of the Department's own estimates of need as shown in the RCA.

In addition, ASCS needs additional funding to carry out the new authorities and programs such as the Special Areas Conservation Program (item 23) the Colorado River Salinity Program (line 24). Funding for these programs should not be taken from the ongoing ACP budget.

25. The (ECP) had a $17 million carryover from 1982 to 1983.

26. ASCS administrative costs for the cost-sharing programs are appropriated in a separate line item rather than as part of each program (as is the case with the other USDA conservation programs.) In order to get comparable budget treatment, these administrative costs need to be shown. ASCS estimates them to be roughly 10-12% of the total ASCS salaries and expenses.

32. Added Extension effort in support of RCA.

Mr. Chairman, members of the Committee:

I am Neil Sampson, Executive Vice President of the National Association of Conservation Districts. Our association represents the soil and water conservation districts and their state associations in all 50 states, Puerto Rico, the Virgin Islands and the District of Columbia.

The recommended funding levels for various USDA programs which you have before you were developed by the national Council of NACD at its convention last month. I wish to highlight these recommendations in my oral presentation.

For the Soil Conservation Service, the Conservation Operations line item provides the basic technical assistance to cooperating landowners through conservation districts. This is, in our opinion, one of the most valuable programs of USDA in terms of getting conservation on the land in a technically sound manner. Virtually all conservation districts have expressed concern about the decline of available technical assistance over the past years. We recommend that Conservation Operations be increased by $22 million to begin to regain this lost capability.

The Administration has proposed a 50 percent reduction in small Watershed construction funds for FY 84. We consider that this proposed cut is unwise. Many local sponsors already have made commitments in terms of appropriation of funds and acquisition of land rights. Additionally, these funds provide employment for many thousands of people in the private sector through construction contracts. We recommend that Watershed Operations be funded at $200 million for FY 84 with an appropriate number of new starts.

Despite repeated actions by Congress to support the Resource Conservation and Development Program (RC&D) the Administration continues to propose the phase-out of the program. RC&D has, over the last 20 years, proved itself as a catalyst for rural development activities. In FY 81, RC&D attracted over $57 million in other funds to the program, almost twice the amount of direct federal appropriations.

Based on a survey of needs which we conducted last year, we recommend that RC&D be funded in FY 84 at $50 million with appropriate language to preclude phase-out activity.

NACD is concerned about the effects of the present targeting efforts within USDA, both in Conservation Operations and ACP. Too often, money must be taken from areas where it is needed in order to free up resources for other areas. We support the idea of focusing effort where the problem is most severe, but believe that the majority of the targeting efforts should be implemented through the Special Areas Conservation Program and the Grants provisions established in Title X of the 1981 Farm Bill. This is why we have recommended funding for these programs in both the SCS and ASCS budgets.

Again this year, we are recommending that the Grants provision of the 1981 Farm Bill be implemented. Most states tell us that it would be much easier for them to get funds appropriated by State Legislatures if there was a specific federal grant program to relate to. We strongly urge you to fund this program in FY 84.

NACD hopes you will reject the Administration proposal to combine the Forestry Incentives, Water Bank and Emergency Conservation Program into ACP. These programs have different purposes and should be funded separately. Further, we urge you reject the Administration budget and appropriate $210 million for ACP, $13.5 million for Forestry Incentives, and $10 million for Water Bank.

We do agree with the Administration's proposal to separate the Colorado River Salinity Control Program into its own line item, rather than hidden in Conservation Operations and ACP. We understand that proposed legislation is being introduced to implement this change. We commend this change and urge an appropriation of $12.5 million for this program.

The Extension Service should have a separate Soil and Water Conservation and Management program to carry out its responsibilities under provisions of the Soil and Water Resources Conservation Act (RCA). We recommend that this program be funded at $2 million. The Renewable Resources Extension Program should be funded at $10 million.

Mr. Chairman, these are the highlights of our recommendations. We commend you and this subcommittee for your leadership in support of soil and water conservation programs nationwide. We look forward to working with you in the future. Thank you.

FUNDING RECOMMENDATIONS

Mr. Sampson. The funding recommendations that you have before you were those that were enacted by our council, voting delegates from each State, at our annual meeting in New Orleans this last February.

Some points that we are concerned about, basically, are, first of all, the 50-percent reduction in small watershed funding for 1984. We just really think this proposed cut is unwise. There are some things where timing has to be considered in light of the budget problems. In both watershed and RC&D programs, project type approaches to solve community problems have been very successful.

Mr. Chairman, we just got done enacting a tremendous bill to assist with providing jobs in this country, and part of it was to push for some additional effort here. We come in today looking at a weather situation that has this country as wet and as prone to flood damage as it has been in many, many years. In the face of those two current events, it seems particularly unwise to cut those types of programs as severely as the administration has proposed.

It also seems rather incongruous with the administration policy objectives as outlined in the RCA, where, behind soil erosion on cropland, the No. 2 problem was water conservation and water supply, and to cut these programs in the face of that high priority seems to us to be rather inconsistent.

We have repeated actions in the administration to try to eliminate the resource conservation and development program. We have had repeated hearings, signals, and legislation in this Congress that say this program is accomplishing a great deal in rural America. You will hear from some people today on this specific subject, but our support is for that program in full, and you can see it here.

There are two programs in the 1981 farm bill that have never been funded. One is the provision for grants to States and districts which, we think, would be a tremendous signal to State and local governments that their support and their contributions are appreciated in this total Federal, State, and local effort. While we don't think a great deal of money is required to send that signal, we think that Congress should indeed do this.

The other is the special areas conservation program which has had a great deal of support on the Hill. It was enacted in the 1981 farm bill.

There are areas in the country where our programs today are simply not capable, even with the targeting efforts of USDA, to meet the needs that are there. We would recommend that you fund this in fiscal year 1984.

Finally, let me point out we do oppose the cutback in ACP for many, many reasons. Certainly, the cutbacks in forestry incentives and the water bank programs were not supported by our group in any way, shape, or form. We do, however, agree with the administration's proposal to separate the Colorado River salinity control program. That has been a program that has proven its effectiveness, and it shouldn't be buried in the ACP program.

Finally, we are concerned that the Extension Service needs to have more funding and a better ability to carry out its responsibilities under the RCA and to deal with these soil and water conservation efforts. So we ask $2 million be appropriated to carry out the RCA, and $10 million for the renewable resources extension program.

Mr. Chairman, those are the highlights of our recommendations.

Senator COCHRAN. Thank you very much, Mr. Sampson.

How many copies of your book have you sold?

Mr. SAMPSON. About 13,000 or 14,000.

Senator COCHRAN. Congratulations on that. I appreciate having a copy.

I think you have made some good points this morning, and in my opinion, they ought to have an impact on the committee deliberations. I think it is interesting to observe that the RCA report that was reviewed in Senate Committee on Agriculture hearings a few months ago indicated that there would be minimum levels of funding needed for some of these projects over the next several years if we were going to make the progress that has to be made to protect our soil and water resources. Yet, the budget request that was made by the administration in response to the requirements of the law is inconsistent with that report. We will be looking at that very carefully. We talked in some detail with the administration witnesses who were here to try and defend the budget request. I am hoping we can get the committee members and the House to go along with increases over that budget request in some of these important areas. These watershed projects are very important in my State. I know they are in many other parts of the country as well.

I notice you oppose the combining of the forestry incentives program and waterbank program under the ACP program. If we do combine them, I am afraid some of those programs will just disappear. The amount requested is substantially less than was appropriated last year.

Well, you have made an important contribution to our hearing, and we really do appreciate your being here. Thank you for taking time to come before the committee.

Mr. SAMPSON. Thank you.

Soil Conservation Society of America

STATEMENT OF NORMAN A. BERG, WASHINGTON REPRESENTATIVE

Senator Cochran. Our next witness is Mr. Norman Berg, who is the Washington representative for the Soil Conservation Society of America.

Welcome, Mr. Berg.

Mr. Berg. Thank you, Mr. Chairman. I am pleased to be back before your committee, wearing a different hat, as a representative of the Soil Conservation Society of America. I am a charter member or fellow of that organization. I am very proud to serve in this capacity.

Mr. Walt Peechatka, our executive vice president, headquartered in Ankeny, Iowa, asked that I present a statement of our concern before your committee. We appreciate the opportunity. This is the first time that the Soil Conservation Society has been invited to testify before this committee. It represents a first step in our work to increase our visibility here in this important city. We intend to speak out more and more on the direction of soil and water conservation and watershed protection policy and other natural resource issues that are of concern to our 13,000 members.

In the interest of your time, Mr. Chairman, and with your permission, I would ask the full text of the statement be inserted in the printed record.

Senator Cochran. It will be included.

[The statement follows:]

STATEMENT OF NORMAN A. BERG

Mr. Chairman, I am Norman A. Berg, Washington, D.C. representative of the Soil Conservation Society of America. Mr. Walt Peechatka, executive vice-president of SCSA, headquartered in Ankeny, Iowa, asked that I present a statement at this hearing.

Mr. Chairman, members of the Senate Subcommittee on Appropriations for Agriculture, Rural Development and Related Agencies, to our knowledge, this is the first time SCSA has been invited to testify before your committee. We appreciate the opportunity. It represents a first step to increase SCSA's visibility in Washington, D.C. We intend to speak out on the direction of soil and water conservation and watershed protection policy and other natural resource issues that concern our Society.

In the interest of your time, Mr. Chairman, and with your permission, I would ask that the full text of SCSA's statement be inserted in the printed record of these hearings. This describes the mission of the organization, our long dedication and concern for promoting the science and art of good land use with special emphasis on the conservation of soil, water, and related natural resources.

Briefly, we are concerned that the President's budget for fiscal year 1984, as you know, proposes only $694,073,000 for all USDA conservation programs. This is at least a 30% reduction from the funds Congress appropriated for conservation programs in the current fiscal year. The Administration's 1984 budget, when matched with its RCA program sent to Congress by the President in late December, 1982 as the blueprint for the future for soil and water conservation, doesn't even come up to their "low bound" projection of $735 million.

Appropriations for fiscal year 1982 provided $1,005 million when adjusted to 1983 dollars. Their RCA document on page 35 stated, "Future budget requests will likely be between the "low bound" ($735 million) and the "high bound" which reaches $1,282 million by the fifth year. Therefore their budget request before you for consideration cannot be reconciled with their program for the next five years.

Do the people who make these budget decisions know something that soil and water professional experts, including the land users in every corner of the United States, do not know? Are they saying that there is no problem, that action can be postponed, that if there is a problem others can do the job?

We do not accept their budget and program judgments because there is overwhelming evidence that they have badly misjudged the conservation problems and the support for correcting those problems. There is great concern about the quality of our environment, including doing more for soil and water conservation. The RCA process, required by P.L. 95-192, resulted in an intensive five-year study of conservation problems and programs in the U.S. and much was learned from it. One key element in the strength of that effort was the participation requested by USDA and received from conservation interests at the local level, including farmers, ranchers, conservation district board members and many others. These people were asked several times over the past five years about soil conservation problems, priorities and strategies to improve the nation's conservation effort. They responded by the thousands, on the assumption that their correspondence and ideas would have credibility and have influence in drafting the final program and making subsequent budget decisions.

The Administration's 1984 budget ignores first what these local people said from every corner of the land and, second, what the land itself is telling us.

We agree with the Secretary of Agriculture, who, less than a month ago, told the Board of Directors of NACD "Economic and political conditions have turned the screws on farmers. In a battle for survival many have turned to continuous row cropping on marginal acres and as you and I know, when they plowed those grasslands and marginal lands into neat furrows they issued an open invitation to further erosion." The total annual loss of soil is large, estimated to be 6.4 billion tons. This constitutes a major natural resource problem.

Currently the Administration's Payment-in-kind (PIK) program offers an excellent opportunity for soil and water conservation. It gives farmers the chance in 1983 to set aside their most erosive lands along with reducing production and costs this year. However, with adequate incentives and needed technical assistance it can also be the base for long range efforts to induce farmers to make those needed adjustments in land use and undertake the required conservation practices.

We are here today to join others in a call to Congress to strengthen, not weaken, the 1984 USDA conservation budget. We do not want to find ourselves in the position of celebrating the 50th anniversary of the conservation movement (1983-85) with another "Dust Bowl"-type conservation catastrophe. We in SCSA are ready to help you assure this will not happen. We will be pleased to answer any questions you may have about our work. Thank you for this time on your crowded schedule.

The Soil Conservation Society of America is a nonprofit scientific and educational organization founded in 1945. SCSA is dedicated to promoting the conservation of land and water resources to the end that these resources may be used and enjoyed by mankind forever.

Our membership worldwide, now totaling more than 13,000, includes researchers, conservationists, educators, technicians, legislators, farmers and ranchers, local conservation officials and many other disciplines.

SCSA is governed by a Council consisting of seven officers and 10 councilmen. Our 1983 officers come from Oregon, Missouri, Oklahoma, Texas, and Ohio.

Periodicals published by SCSA include the Journal of Soil and Water Conservation and the "Conservogram." The Journal is a source of continuing education and technical information for members and nonmembers alike, including general interest articles, articles on policy matters, research reports, guest editorials, and commentary.

SCSA also publishes a variety of other materials. These include books, such as Soil Conservation Policies, Institutions, and Incentives, Remote Sensing for Resource Management, and the third edition of our Resource Conservation Glossary, as well as a series of educational cartoon booklets for students in upper elementary grades.

When appropriate, SCSA develops position statements on timely, pertinent conservation subjects. Over the years, the organization has expressed its position on water resources, soil erosion and sedimentation control, land use, wildlife, conservation research, and a number of other issues. Currently under development is a position statement on acid precipitation.

The strength of SCSA exists within its 165 chapters throughout the United States and Canada. These chapters elect their own officers, create their own committees, and sponsor annual meetings, workshops, and numerous other conservation projects. SCSA is truly a local grassroots organization.

It is certainly an appropriate role of government to be deeply concerned about the management of the nation's resource base for the benefit of present and future generations. If this can be attained by reinforcing the land users' stewardship to protect their livelihood, all the better. Farmers will not ignore the needs of their land. By providing additional incentives in programs where they have experience, both farmers and consumers will gain in the long-run through a sustained productive land base and lower food costs. If we really expect farmers to change their behavior, however, we must begin to recognize the agronomic, economic, and social constraints making up the landusers world.

During the 1970's, the opportunity for much larger profits from intensive cropping than from animal production pulled millions of acres out of pastures, ranges, and forests. Because some of this land is highly erosive, that massive shift in land use accelerated the soil erosion problem. Many of these acres had previously been shifted out of intensive crop production at considerable government expense by the Conservation Reserve, the Great Plains Conservation Program, or the regular conservation programs.

The concern that soil erosion was still a substantial problem after fifty years of government sponsored soil conservation programs and that it was likely worsened by the economic circumstances of the 1970's stimulated a review of what had been done and a search for new approaches to the problem.

That quest for effective ways to increase soil conservation efforts consistent with society's long-run interests is beset with problems. Traditionally the United States has relied on voluntary programs with the government sharing the costs. That approach though successful in many areas has left some worsening soil conservation problems. Now the Department of Agriculture has sent Congress a slightly new program with more targeted efforts and more emphasis on nonfederal work including the responsibility of the land user. It mostly relies on time-tested technical and administrative mechanisms. Its success is questionable at this stage, especially with the budget and personnel constraints

Low crop prices and farm income are giving rise to a range of new legislative proposals. Currently, the newest action put forth by the Administration is the "Payment in Kind (PIK)" program. This plan to reduce production and surplus supplies by paying farmers for acreage reductions with grain presently in reserves focuses on land use, includes direct payments, and could be an excellent opportunity for soil conservation. Not only would it allow farmers to set aside their most erosive lands, but it could also be used to reduce production costs. However, to succeed, the PIK program must have adequate incentives to induce farmers to both give up production and undertake the longrange and needed conservation practices. That is not high priority for 1983. However, the potential return from reducing soil erosion loss today far exceeds the costs of trying to correct the problems in the future.

The longer soil erosion problems are deferred, the more difficult and costly are the multiple erosion reduction practices required to sustain production on the moderately to severely eroded soils. By instituting low-cost, relatively easy conservation programs, the need for the high-cost measures in the future could be reduced. If the conditions of the soil deteriorates to the point where multiple erosion practices are necessary, farmers' costs will increase along with governments.

There are a number of studies which have demonstrated that conservation tillage has the potential to conserve soil while also saving on labor, energy and machinery costs. Yet there has been too little effort to test the congruence between this experimentally derived data with farmer's actual behavior, that is, the extent to which this potential is actually being realized by farmers.

CONSERVATION PROGRAMS

Mr. BERG. Briefly, we are concerned, as you have just mentioned, that the budget that came to Congress for 1984 proposed only $694 million for all of the USDA conservation programs. This is at least a 30-percent reduction from the funds Congress appropriated for those conservation programs for all of the agencies in the Department for this fiscal year. This 1984 budget, when matched with its RCA program sent to Congress in late December 1982 as a blueprint for the future conservation, doesn't even come up to the low bound on the projection of $735 million.

The RCA document, on page 35, stated that future budget requests will likely be between the low bound of $735 million and the high bound of $1.2 billion by the fifth year. Therefore, their budget request before you for consideration cannot be reconciled with their program for the next 5 years. In fact, on page 139 of the budget, the projection over the next 4 years is only $549 million.

Do the people who make these budget decisions know something that soil and water professional experts and land users in every corner of the United States do not? Are they saying there is no problem, that action can be postponed, that if there is a problem, others can and will do the job?

We do not accept the budget and program judgments that are before you, because there is overwhelming evidence they have badly misjudged the conservation problems and the support for correction of those in every corner of the land. There is great concern about the quality of the environment, including doing more for soil and water conservation. The RCA process, required by Public Law 95–192, came from a very intensive, 5-year study of the problems on the landscape of our country and the programs that had been in effect nearly 50 years, and we learned very much from that study. One key element in the strength of that effort was the participation that was requested by the Department and received from conservation interests at the local level, including farmers, ranchers, conservation district board members, and many, many others. These people were asked several times over the past 5 years what they thought about the USDA programs, what they thought about their problems, and what are the priorities and strategies to improve the Nation's conservation effort. They responded by the thousands, on the assumption that their correspondence and ideas would have credibility and influence in the drafting of the final program and in making subsequent decisions.

1984 BUDGET

The administration's 1984 budget ignores, first, what these local people from every corner of the land have tried to tell us, and, second, what the land itself is telling us.

Currently, the administration's payment-in-kind (PIK) program offers an excellent opportunity for soil and water conservation. It gives farmers a chance in this calendar year to set aside their most erosive lands along with reducing production and their costs. However, with adequate incentives and needed technical help, it can also be the base for long-range efforts to induce farmers and ranchers to make those needed adjustments in land use and undertake the required conservation practices.

There are many, many items of concern in the budget, as Mr. Sampson has just mentioned. But as the former Chief of the Soil Conservation Service, I for one would like to say that friends here who will speak up later from South Dakota, Montana, and Nebraska on the resource conservation and development projects need to be heard. The RC&D program in the Department's budget has gone through a roller-coaster history that is absolutely ridiculous, as I see it, and it deserves a better future.

We are here today to join others in the call to Congress and the decisionmakers to strengthen, not weaken, the 1984 conservation budget. We don't want to find ourselves in the position of celebrating the 50th anniversary of the conservation movement in this next couple of years with another Dust Bowl-type conservation catastrophe.

Thank you for your time.

Senator COCHRAN. Mr. Berg, I really appreciate getting a chance to see you again, and I also appreciate having the benefit of your counsel and observations with respect to funding levels for soil conservation activities. I agree with a lot of things you say, and I think that the committee is inclined to support higher levels of funding, particularly in view of the RCA report to which you refer. We had assumed that we would see a budget request submitted by the administration somewhere between the low-bound and high-bound levels. I think that we are going to be inclined to move those numbers upward if we can. We don't want to invite a Presidential veto of our bill. I don't know if we could get enough votes to override a veto of this bill. But we do think there ought to be some room for compromise, and we are going to be seeking that area of compromise that may be available to us. I know from your vast experience in the field and your work in the Government that your observations and recommendations should carry great weight with this committee, and I think they will.

Mr. Berg. Thank you very much.

Senator Cochran. Thank you for being here.

Mr. Berg. Mr. Chairman, your committee is to be congratulated for what you have done, and we have great confidence in your ability to analyze all of the segments of our agricultural economy and put it into balance.

Senator Cochran. It is quite a challenge. We will rise to the occasion.

I am going to request we take a short recess right now. I have another obligation to meet. Senator Burdick is supposedly on the way to the hearing room to assume the responsibilities of the Chair. We will stand in recess until he arrives.

[A brief recess was taken.]

Land Improvement Contractors of America

STATEMENT OF WILLIAM HARTMANN, JR., CHAIRMAN, LEGISLATIVE COMMITTEE

ACCOMPANIED BY:
STANLEY BROWN, PRESIDENT
MICHAEL STROTHER, WASHINGTON REPRESENTATIVE

Senator Burdick [presiding]. Our next group of witnesses will be those associated with the Land Improvement Contractors of America, Mr. Stanley Brown, president; Michael Strother, Washington representative; and Mr. William Hartmann, chairman, legislative committee.

Proceed as you wish.

Mr. Hartmann. Good morning, Mr. Chairman. I am William Hartmann, a land improvement contractor from Nebraska. I am here to represent the Land Improvement Contractors of America. We are the people who build the terraces, the waterways, and make the drainage systems on farm ponds and dams. With me is the president of the Land Improvement Contractors of America, Mr. Stanley Brown; and our Washington representative, Mr. Michael Strother. We also have a host of fellow contractors from across the Nation in the audience.

As requested by the chairman, we will touch on just a few of the highlights of our testimony, in the essence of time, with the understanding the entire testimony will become part of the record.

Senator Burdick. It will appear in the record.

[The statement follows:]

STATEMENT OF WILLIAM HARTMANN, JR.

Mr. Chairman and Members of the Committee, we are here today representing the 4000 members of the national trade association, Land Improvement Contractors of America. The organization has chapters in 35 states, and members in 48 states. Our members work directly for the landowner installing conservation measures. These measures include a wide range of erosion control methods such as terraces, farm ponds, watersheds, grassed waterways earthen dams, diversion channels, conservation drainage, leveling and grading, and others.

The Problem

Each year the American consumer has to spend billions of dollars for food. In twenty years that cost will probably triple. It will triple not just because of inflation, but because of erosion --- soil erosion. Every hour the Mississippi River flows to the sea it carries with it 40 acres of good cropland. Wind and water are carrying away some 4 billion tons of our farmlands each year.

USDA estimates that more than one-third of all America's cropland is eroding faster than nature can replace it. USDA's recent RCA study revealed that our agricultural production capacity is now clearly threatened. In fact, the present erosion is approaching the appalling loss of land the country suffered in the Dust Bowl era. Over 50 years, lost productivity could cost us 50 - 70 million metric tons of grain annually... translating into higher food costs at home and a worsening balance of payments abroad.

Over the last several decades, soil erosion has accelerated while funding for federal soil conservation programs has held steady or even dropped in the face of general inflation. ACP, which is surely the leader in putting conservation practices on the land, has fallen from a high of $500 million in 1936 to only $190 million in 1983, and the Administration proposes a further cut to $56 million in 1984. Other conservation programs are targeted for cuts in that budget, with an overall reduction of one-third requested. Such levels of funding can hardly be expected to sustain effective agricultural conservation programs in 50 states.

We would like to bring to the committee's attention another potential problem concerning the ACP payment limitation. Due to inflation, the current $3,500 individual annual payment limitation has lost some of its value as an incentive to the landowner. With today's costs, this amount is often too small a percentage of the overall project cost to be an effective incentive. We urge the committee to consider raising this limit to $5,000 to provide additional incentive particularly on the larger projects.

Unfortunately, our remarkable productivity in the past has lured us into a false sense of security. We take our bounty for granted. We don't realize that chemicals are making up for our soil's decreasing fertility. We don't realize that each year smaller amounts of land are expected to yield larger amounts of food. As farmers struggle to make ends meet, added tons of fertilizer provide a succession of good harvests. While the short-term result of this is increased crop yields, the long-term result is a land more susceptible to severe erosion.

Today, American farms feed our entire nation, the peoples of other nations, and keep our economy strong with multi-billion dollar food exports. American farms do all this with a minimum of government encouragement for erosion control measures. Our policy seems to expect the farmer to keep producing at these high levels on a seemingly perpetual basis with little help from the community at large.

Undertaking Solutions

We can, in fact, deal with the erosion problem right now. We have advanced methods of farming. We have advanced techniques for improving the land. But it is going to take all of us -- farmer, consumer, taxpayer, conservationist, and Congress -- to put the solutions to work. There is no denying that full scale conservation is an expensive proposition. To put an entire farm on a soil-conserving basis can involve a hefty outflow of capital. For example, terracing all of a 160 acre farm could cost $72,000. While a farmer might not immediately recognize the long-term benefits of erosion control, he will be readily aware of the short-term costs. Few farmers can afford these long-term investments outright.

Yet, somehow, the farmer must make that often hefty investment to conserve the land if our way of life is to be insured -- a way we can pass on to our children. Without help, however, the landowner may simply delay any such investment, hoping for more favorable economic conditions; and all the while the erosion continues. The responsibility falls on all of us. At some point, we must adopt a policy of preventative maintenance on a massive scale -- with a creative public-private partnership providing the necessary care, and cash.

Conservation programs are not just more subsidy programs. Every dollar the government invests in soil and water conservation is an investment in the future. And Americans understand and support this concept. A nationwide poll taken by the Louis Harris organization as part of the 1980 RCA conservation study revealed that soil and water conservation is viewed as a joint responsibility in which the costs should be shared by the public and private sectors. The same poll showed that the American public feels government should continue its efforts to get the conservation job done -- a job that is barely started.

Recommendations

We recognize the problem of current high budget deficits and the need to bring them down. But we believe that few higher national priorities exist than the maintenance of our food production base. We have only to imagine what our economic position would be if we lose soil fertility. A major reorganization of budget priorities may be in order to address this unique national problem.

It has been estimated that only 20% of our conservation needs are being addressed. Based on current appropriations, this would indicate some $4 billion a year is needed to address 100% of the problem. Considering that 4 billion tons of soil is eroding each year, it would further indicate that roughly one dollar of conservation per ton of erosion is needed annually to fully protect our productivity base.

In order to address the erosion problem on a scale large enough to produce significant results, our organization recommends that members of the Committee and the Congress consider taking the following actions, either separately or in concert:

1. Increase funding for each current federal conservation program by 50%.
2. Provide a PIK Program for Conservation based on a percentage of production to give incentive for long-term conservation plans, with payments being made in surplus government grain.
3. Establish a Conservation Trust Fund with a blend of public funds and a voluntary per-unit check-off on all commodities contributing to soil erosion.
4. Establish a Revolving Loan Fund with public funds which would provide long-term low-interest loans, regardless of ability to pay, for approved conservation measures.

Conclusion

We seek the help of this committee in tackling the huge and difficult problem of eroding productivity....and on a scale not considered since the Dust Bowl days. Such an undertaking promises the country great rewards. Inaction insures a bleak future.

LICA recognizes and applauds the leadership this committee has provided over the years in developing conservation to where it is today in America. When we hear from the scientific community and in the news media almost daily about the urgent need for more soil and water conservation, it is fitting to reflect on where we would be today if it hadn't been for this committee and the Congress providing help and guidance for so many years in the field of conservation. We hope the committee will continue to build on that record.

Thank you for this opportunity to appear and present our views.

SOIL EROSION

Mr. HARTMANN. Each year the American consumer has to spend billions of dollars for food. In 20 years, that cost will probably triple. It will triple not just because of inflation, but because of erosion—soil erosion. Every hour the Mississippi River flows to the sea, it carries with it the equivalent of 40 acres of good cropland. Wind and water are carrying away some 4 billion tons of our farmlands each year. One source has placed the tonnage of topsoil loss at 10 tons per day.

The USDA estimates that more than one-third of all America's cropland is eroding faster than nature can replace it. USDA's recent RCA study revealed that our agricultural production capacity is now clearly threatened.

Over the last several decades, soil erosion has accelerated while funding for Federal soil conservation programs has held steady, or even dropped in the face of general inflation. ACP, which is surely the leader in putting conservation practices on the land, has fallen from a high of $500 million from its inception in 1936 to only $190 million in 1983, and the administration proposes a further cut to $56 million in 1984. Other conservation programs are targeted for cuts in that budget, with an overall reduction of one-third requested. Such levels of funding can hardly be expected to sustain an effective agricultural conservation program in all 50 States.

As farmers struggle to make ends meet, added tons of fertilizer provide a succession of good harvests. While the short-term result of this is increased crop yields, the long-term result is a land more susceptible to severe erosion.

Today, American farms feed our entire Nation, the peoples of other nations, and keep our economy strong with multibillion dollar food exports.

Now, we can, in fact, deal with the erosion problem. We have advanced methods of farming. We have advanced techniques for improving the land. But it is going to take all of us—the farmer, the consumer, taxpayer, conservationist, and Congress—to put the solutions to work. There is no denying that full scale conservation is an expensive proposition. Few farmers can afford these long-term investments outright.

Yet, somehow, the farmer must make that often hefty investment to conserve the land if our way of life is to be insured—a way we can pass on to our children. Without help, however, the landowner may simply delay any such investment, hoping for more favorable economic conditions; and all the while the erosion continues. The responsibility falls on all of us. At some point, we must adopt a policy of preventative maintenance on a massive scale, with a creative public-private partnership providing the necessary care, and cash.

Conservation programs are not just more subsidy programs. Every dollar the Government invests in soil and water conservation is an investment in the future. Americans understand and support this concept. Never have so many supported the use of public funds to attain soil and water conservation.

RECOMMENDATIONS

We recognize the problem of current high budget deficits and the need to bring them down. But we believe that few higher national priorities exist than the maintenance of our food production base. We have only to imagine what our economic position would be if we lose our soil fertility. A major reorganization of budget priorities may be in order to address this unique national problem.

It is generally recognized that only 20 percent of our conservation needs are being addressed. Based on current appropriations, this would indicate some $4 billion a year is needed to address 100 percent of the problem. Considering that 4 billion tons of soil are eroding each year, it would further indicate that roughly $1 of conservation per ton of erosion is needed annually to fully protect our productivity base. Federal programs now only provide $800 million, or 20 cents per ton, and address only 20 percent of the problems.

In order to address the erosion problems on a scale large enough to produce significant results, our organization recommends that members of the committee and the Congress consider taking the following actions, either separately or in concert:

One, increase funding for each current Federal conservation program by 50 percent.

Two, provide a PIK program for conservation based on a percentage of production to give incentives for long-term conservation plans.

Three, establish a conservation trust fund with a blend of public funds and a voluntary per-unit check-off on all commodities contributing to soil erosion.

Four, establish a revolving loan fund with public funds which would provide long-term, low-interest, or no-interest, loans, regardless of ability to pay, for approved conservation measures.

LICA recognizes and applauds the leadership this committee has provided over the years in developing conservation to where it is today in America. Mr. Chairman, you and this committee should assure the efforts of this Nation to preserve its precious soil and water. We salute you and hope the committee will build on that record.

Thank you for allowing us the opportunity to appear before this distinguished committee.

Senator BURDICK. Thank you very much. You certainly touched upon a very important part of our country, and that is the preservation of our soil. There are very few things more important.

Do either one of the other gentlemen have any comments to make? The light is still green.

[No response.]

Senator BURDICK. We generally agree with your perspective. Thank you very much.

[CLERK'S NOTE.—Subsequent to the hearing, the following statement was provided by the Kansas Land Improvement Contractors Association.]

STATEMENT OF JACK BERNRITTER, PRESIDENT, KANSAS LAND IMPROVEMENT CONTRACTORS ASSOCIATION

Mr. Chairman and members of the committee, I am Jack Bernritter of Havensville, Kans., and president of the Kansas Land Improvement Contractors Association. Representing the soil conservation contractors throughout the State of Kansas, I appreciate this opportunity to submit this statement outlining our association's position on the future of Federal conservation programs.

We commend Congress and especially this committee for the positive actions on soil and water conservation as contained in the farm bill of 1981. We also wish to express appreciation for the support your committee has given soil and water conservation programs in the past, and present some concerns about the administration's proposed 1984 budget.

The Soil and Water Resources Conservation Act of 1977 (RCA) provided an excellent opportunity to go out and ask people how they felt about soil and water conservation concerns and its programs. These comments, regarding the Secretary of Agriculture's preferred program, became a part of the program announced by President Reagan on December 21, 1982. The top priorities listed in that program are erosion control and water conservation, and upstream flood prevention.

Mr. Chairman, we are finding that the people of Kansas are ready and willing to carry out conservation programs through a partnership between the Government and the landowners. A nationwide Louis Harris poll, part of the RCA effort, also revealed similar support for soil and water conservation programs by people from all walks of life. This did surprise some people, but not us; we knew all along there was support in Kansas. While we are encouraged by the public support, we are also concerned about certain aspects of the proposed 1984 budget.

Controlling floods on over 2 million acres of highly productive cropland is a major concern in Kansas. We have a backlog of 26 unserviced small watershed applications. We recommend that planning funds be restored to the $9 million level and that Congress gain control of construction start restraints now being administered by the Office of Management and Budget. Construction funds for 1984 need to be around the $200 million level rather than the $96.5 million level proposed by the administration.

We are also very much concerned that the administration has proposed to rescind $69 million in 1983 watershed funds. We oppose this rescission and quite frankly can make little sense out of this action. The appropriations bill was signed in late December 1982, and the rescission proposal came some 30 days later. The Public Law 566 watershed dams are built for the purpose of flood prevention as well as storage for one of our best resources * * * water. Further, the smaller watershed dams will take less land out of production and replenish water supplies. Notably, this type of construction program would help our economy by putting many people back to work.

While we are on the topic of water resources, I would like to make another point. As mentioned before, the RCA program transmitted to Congress by the President has upstream flood prevention as one of the top priorities. We are, therefore, at a loss as to why the administration's budget recommendation calls for a 51-percent reduction from the 1983 level. This is a much greater reduction than the Corps of Engineers' 36 percent, and as you may or may not know the Bureau of Reclamation's water resources budget recommendation calls for a 25-percent increase. We wonder why the Secretary of Agriculture stands for this. Maybe he does not understand the small watershed dam program.

Cost-share programs have suffered badly over the past decade. The agricultural conservation program (ACP) administered by the Agricultural Stabilization and Conservation Service and the Great Plains conservation program administered by the Soil Conservation Service are extremely important programs in Kansas to help conserve and protect our vital cropland and rangeland resources. Funds for both of these programs are not meeting the demands and needs. We have a nearly $1 million backlog in Great Plains contracts in Kansas. Several counties in Kansas obligate their ACP funds in the first few months of the year. The bottom line is that badly needed conservation work is being delayed.

Mr. Chairman, we also believe that the payment-in-kind (PIK) concept has possibilities of increasing the amount of conservation in this country. I urge you to study the possibility of making PIK available to landowners who apply conservation to their lands. We would not support PIK as a substitute for conservation cost-share moneys, but think that if PIK were made available after cost-share funds are expended that many farmers would use this tool to go ahead and apply conservation practices, rather than wait until cost-share funds are again available.

Mr. Chairman, these are our major areas of concern at this time. I fully realize and understand that the 1984 budget must be carefully scrutinized and be in line with our national priorities and objectives. However, I must also point out that our soil and water resources are vital to sound economic progress and stability in the country. Soil and water conservation must receive a higher national priority in the years to come.

Again, we thank you and urge that this committee continue its support for the Federal conservation programs.

Congressional Witness

STATEMENT OF HON. PATRICK J. LEAHY, U.S. SENATOR FROM VERMONT

Senator BURDICK. I believe Senator Leahy is present. You are next, Senator.

Senator LEAHY. Mr. Chairman, I appreciate the opportunity to be here. I have been out in your fine State over the weekend. I got a chance to see the mountains of North Dakota. It was nice to see a State not covered with snow, as mine is at the moment.

Senator BURDICK. Where were those mountains?

Senator LEAHY. It was either that or it was a result of construction of the road. I noticed the car went up slightly at one point. [Laughter.]

Well, actually, Vermont, which is seen as a very small State geographically, would be larger than North Dakota if we flattened out the State.

Senator BURDICK. I think you are getting your States mixed up.

FMHA RURAL DEVELOPMENT PROGRAM

Senator LEAHY. I commend the people of the State. They are very, very nice and were very welcoming.

I appreciate the opportunity to appear before the subcommittee today. I want to discuss the fiscal year 1984 budget proposal for the Farmers Home Administration rural development programs.

The Federal commitment to rural areas—and I think it is a commitment best exemplified by FmHA—began in 1916 with the passage of the Rural Credits Act, which helped farm families establish homesteads and farm operations. This commitment was strengthened with the creation of the Resettlement Administration in 1937, the predecessor agency of FmHA. Since those early times, Federal rural programs have worked to save and create new rural jobs, provide rural residents with safe and reliable supplies of water, and construct essential police and fire stations, and other community facilities.

That doesn't mean all Federal rural programs have been perfect successes. Indeed, some of the regulations and requirements for these programs have made it hard for rural residents to take advantage of them.

In 1980, the Rural Development Policy Act, which I sponsored, was enacted into law. It directed the Secretary of Agriculture to devise and implement a Government-wide strategy for improving the delivery of Federal services to rural areas. It called for an end to duplication and waste. It called for a more coordinated and effective effort on the part of Federal, State, and local units of government to aid rural areas. It called for an end to the anti-rural bias inherent in many of the Federal programs designed for residents of our small towns and cities.

RURAL DEVELOPMENT REPORT

Earlier this year, the administration finally published their first strategy report in accordance with the act. It was 2 years late, and it cost more than $4 million to produce. And, quite frankly, Mr. Chairman, the Administration shouldn't have bothered.

The report is long on empty rhetoric and very short on substantive recommendations. Indeed, the report reviewed, in very little detail, only 40 of the hundreds of Federal programs serving rural America. The report made only 12 recommendations. The report is nothing like an earlier draft which I have obtained.

The early draft differs markedly in both tone and substance from the final sanitized report that Members of the Senate received.

Of these major differences, three stand out in my mind as particularly important.

First, the Rural Development Policy Act called on the administration to include measures to protect the environment and agricultural lands of rural areas. This is vital to the preservation of the rural quality of life.

The early draft states, and I quote, "Underlying all of these goals is the desire to preserve what is best and what should endure in rural America—prime farmland, clean air, clean water, and open country." Something, quite frankly, Mr. Chairman, all of us could agree about. But the final report makes no mention of the need to protect the environment.

Second, the early draft of the report contained the following: "Federal involvement should be streamlined and the partnership of public and private effort is strongly encouraged in the work of rural development." The final report makes no mention of this essential partnership and instead makes empty claims about the ability of the private sector and volunteerism to replace a decades-old Federal commitment to rural areas.

Finally, the early draft of the report states, and I quote:

> Incentives for health practitioners to locate in rural areas, * * * farmland preservation * * *, * * * and rural ambulance and public transportation * * * are important as an agenda for future action.

And the final report does not include one single piece of that agenda.

The final report was issued before the fiscal year 1984 budget was sent to Congress. It used the President's proposed fiscal year 1983 budget instead, even though we changed those numbers significantly during the appropriations process.

The Office of Rural Development Policy did work on this report for most of last year. OMB was at work on this year's budget at the same time. Surely the staff of the Rural Development Office could have picked up the phone and called the OMB for up-to-date numbers. The fact they didn't have the telephone number of OMB—I will be glad to supply it for them—makes you wonder if the Administration has the ability to coordinate the writing of a report between two of its own offices.

And what does it say about the ability of the Office of Rural Development Policy to get its views heard over at the White House? It doesn't say much. It says one-third of the people in this country are excluded from consideration by the Administration.

It is too bad, because the rhetoric in the report just does not match the realities of the 1984 budget proposal. For that matter, it doesn't comply with the Rural Development Policy Act.

The Rural Development Policy Act requires a strategy to seek to improve the delivery of Federal services to rural areas. The Reagan report cites this as a No. 1 priority.

What happened to No. 1? The President's budget for this year calls for another 50-percent cut in FmHA community loan program funding. After this cut, on top of a 50-percent cut enacted in fiscal year 1981, the programs are destined for uncertain status as block grants.

The Policy Act and the Reagan rural report mention the need for better housing in rural areas. But the reality of the 1984 budget reveals a proposed 67-percent cut in FmHA housing funds.

The act and the Reagan report cite the need for more jobs. But instead, the fiscal 1984 budget proposes the elimination of the business and industrial loan program. That is a program which has created more than 300,000 rural jobs since 1974.

Rural people deserve better than this. For years, they have worked to get the Federal Government to understand their unique and critical needs. We have been slow to respond, but progress has been made.

Yet, the Administration continues to insist that these programs have been so successful that we do not need them anymore, that somehow rhetoric alone will build homes for 2 million rural families who still live in substandard housing, and that somehow voluntarism will construct water and waste disposal facilities for rural towns that need them.

The rural people of Vermont are as self-sufficient as anybody in the country, but I tell you voluntarism alone will not construct those water and waste disposal facilities, whether it is there or North Dakota, Mississippi or anywhere else. Nor will rhetoric build those 2 million homes.

Rural America is a growing, dynamic part of this country. I think this administration, like others before it, Democratic and Republican, must be held accountable if we are to successfully bring rural areas into the economic mainstream of this country.

So I would recommend that this subcommittee again reject these proposals. I want to commend the chairman of the subcommittee, Senator Cochran, for his work in preserving these vital rural service programs, and, Senator Burdick, for the work you have done for years, long before I was in the Senate, in the same area. I hope we can again work to keep FmHA funding levels at their fiscal year 1983 equivalent.

Thank you very much, Mr. Chairman.

Senator BURDICK. Senator, in adding up these figures the Administration is proposing, the Farmers Home credit budget reduction totals almost $3.1 billion. Are you aware of any sources of private credit that might pick up the slack?

Senator LEAHY. I am not aware of any at all. It seems that that kind of money is available only when huge conglomerates want to merge. It certainly isn't in the rural banks in Vermont, and I suspect it is not in the rural banks in most States.

Senator BURDICK. Do you have any figures in mind that we should adopt this year?

Senator LEAHY. Well, I certainly don't think we should go below the budget of last year. I really don't. This has been an extraordinarily successful program, even when it had problems. They have been corrected. I think without it rural America would be far worse off than it is today. We are a State that feels that rural America is as important a part of the United States as urban America. We are the same real Americans in both places. If we cut rural areas off, then I think we are saying that rural Americans are substandard citizens; they are not real Americans; they are different and they deserve less. And I don't think that that is the way most Americans feel.

Senator BURDICK. Thank you very much.

Senator LEAHY. Thank you.

NEW ENGLAND ASSOCIATION OF RESOURCE CONSERVATION AND DEVELOPMENT AREAS

STATEMENT OF DAVID H. WORDELL, PRESIDENT

Senator BURDICK. Our next witness is the Eastern Connecticut Resource Conservation and Development Areas, represented by David H. Wordell.

Mr. WORDELL. Senator, my name is David H. Wordell, and I am president of the New England Association of Resource Conservation and Development Areas, and president of the Eastern Connecticut RC&D Area.

RC&D PROGRAM

The purpose of my testimony today is to ask your support for the resource conservation and development program.

It is my opinion the great strength of RC&D is the local leadership and the volunteer citizens who form the governing councils. It provides an ideal institution in which local people can meet with other USDA agencies, soil and water conservation districts, regional planning agencies, and private nonprofit groups. It is an organization ideally suited to involve local and State government. It is a grassroots program that is run by people who are responsible to their neighbors for the actions they take.

ASSOCIATION'S RESOLUTION

As part of my testimony, I will refer to portions of the resolution for 1983 fiscal year budget allocation that was unanimously adopted during the midwinter meeting of the New England Association of RC&D Areas held in South Deerfield, Mass. on April 3, 1982.

The resolution read as follows:

> Whereas, section 1530 of the Title XV, Resource Conservation, Subtitle H "Resource Conservation and Development Program," a part of Public Law 97-98, signed to be a law of the land on December 22, 1981, state in part, "The Secretary shall establish a resource conservation and development program," and
>
> Whereas, this same program has been operational and has established a history of expending Federal budgeted monies since about 1962, and
>
> Whereas, there is a strong continuing need for a sound fiscal base that will provide for both technical and financial assistance to the now existing 194 RC&D areas in these United States, and
>
> Whereas, each individual RC&D Area Council or Committee is a strong grassroots organization serving as a viable vehicle to sponsor and support many aspects of rural development which are not being adequately attained through any other program, and
>
> Whereas, the National Association of Conservation Districts will request a 1983 fiscal year budget allocation for the RC&D program of $50 million: Now, therefore be it
>
> *Resolved*, that this New England Association of RC&D Areas, and each of the now 12 RC&D areas in the States of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut—do, hereby, jointly concur with and strongly support the National Association of Conservation Districts by requesting all our Congressmen and the Office of Management and Budget to adopt a 1983 fiscal year budget allocation of at least $50 million that does not include phase out language.

BACKGROUND INFORMATION

Let me take a few minutes to review the RC&D program.

RC&D is an acronym for the resource conservation and development program. It was originally authorized by amendments to the Food and Agriculture Act of 1962. The first RC&D areas were funded and made operational in the mid-sixties. The last information I have is that there are now 194 RC&D areas that are operational. These include about 1,242 counties and parishes in every State except Alaska. On December 22, 1981, President Reagan signed Public Law 97-98, the Food and Agriculture Act of 1981. A very important and beneficial part of this law to rural areas is title XV, subtitle H, that specifically legislated the RC&D program.

May I say it again, the most important principle about the RC&D program is that all actions are controlled by local people. This fact of local control must not be overlooked, slighted, or misunderstood. All RC&D areas have RC&D councils composed of local citizens who volunteer their time and are responsible for the overall efforts of that area's program. It is a grassroots program that is run by people who are responsible to their neighbors for the actions they take.

RC&D program actions are sponsored by towns, counties, cities, conservation and school districts and, in some instances, by chambers of commerce, garden clubs, and others. Most rural communities do not know how or where they can get help to solve their problems. It is a responsibility of RC&D to provide that knowledge. They identify the problem, determine its feasibility, set priorities for the work, and in most instances, have a hand in completing it. The needed assistance comes from whatever Federal, State, county, city, or local agency or organization can provide it.

Money is budgeted to the RC&D program for the construction and development of specific work purposes. These are limited in their scope, because they are intended to apply where that particular work is not adequately available through any other program. In our New England States, the money made available through RC&D has upgraded the quality of rural life by providing funds for work that will: (1) Protect land from erosion; (2) protect soils and flood-prone communities from flooding and sediment damage; (3) protect water impounding reservoirs from siltation and other pollution; (4) provide safe and adequate water-based recreation; (5) improve the habitat in particular areas for fish and wildlife; and (6) provide for drainage of excess runoff surface water.

TECHNICAL ASSISTANCE

In addition to the above, the Soil Conservation Service provides RC&D areas technical assistance. These employees staff RC&D areas and field offices to help communities locate the assistance they need to solve the problems they have recognized. This assistance is the real strength of the RC&D program. No other project-type program I know of has an organization like ours where the people have local representation to help them with their community problems that can also provide cost-share assistance for solving resource problems. Some of the community development activities that have occurred, that I know of, include: (1) industrial parks for new industries; (2) markets for agriculture products; (3) rural water supply and distribution systems; (4) sewage disposal systems; (5) environmental review teams; (6) city street improvement; (7) tourist associations; (8) renovation of downtown businesses; (9) bank stabilization of eroding stream banks; (10) education facilities and courses; (11) solid waste disposal systems; (12) firefighting organizations and facilities; (13) recognition of historic places, people and events, et cetera. I am sure there are many others, but this is a fair representation from our area of the country.

The budget for RC&D has a history of being very low in proportion to its value. It has averaged a little less than $29 million in the last 6 years. This is actually seed money in most cases. In my opinion, this is very cost effective in the economy of our rural America, and it is also vital to the economic stability of our Nation.

"BETTER COUNTRY"

While most of my comments are focused on support for the RC&D program, I would like to address the new USDA rural development policy. This policy, entitled "Better Country," was developed after consultation with hundreds of rural citizens and organizations in cooperation with a 25-member National Advisory Council on Rural Development appointed by the Secretary of Agriculture.

I propose that USDA acknowledge the key role RC&D's take in rural development. RC&D is an organization ideally suited to involve local and State governments. Organized on a substate level, it provides an ideal institution in which local people meet with agencies such as conservation districts, extension agencies, other public organizations such as the regional planning and community development and private nonprofit groups.

In summary, I believe that if such an agency did not exist, we would be most well advised to create one. Rural development, to be successful, must address the economic, environmental, and social needs of our communities. The rural community must be able to provide economic opportunities, protect its natural resources in order to survive, and offer the quality of life which makes people choose to live in a rural area. Through its flexible structure and its many opportunities for service volunteers, the RC&D's can respond to the problems and tap the unlimited opportunities as they arise.

You have an excellent institution in RC&D's. I believe with solid financial and administrative support, finally laying to rest the tragic demoralizing yearly struggle for our funds, the RC&D's can be one of the pivot organizations to carry the challenge of rural development for USDA and other Federal agencies.

I want to thank you and your committee for the opportunity to speak before you.

Senator BURDICK. Thank you very much.

BARNES-AASTAD SOIL AND WATER CONSERVATION RESEARCH ASSOCIATION, INC.

STATEMENT OF WILLARD R. MICKLISH, DIRECTOR

ACCOMPANIED BY JOHN F. STOCK, M.D.

Senator BURDICK. Our next witnesses will be Dr. John F. Stock and Mr. Willard R. Micklish, representing the Barnes-Aastad Soil and Water Conservation Research Association.

Welcome to the committee.

Mr. MICKLISH. Thank you, Senator Burdick. Dr. Stock is a doctor in internal medicine and is also an active farmer. That is one of the reasons he is here today. I am a businessman from Morris, Minn. We represent the North Central Soil Conservation Research Laboratory in Morris, Minn., whose jurisdiction is basically the Red River Valley between North Dakota and Minnesota, and all parts of South Dakota.

Senator BURDICK. Do you realize that they once had a very good lawyer—me?

Mr. MICKLISH. Yes; I do.

I am very happy you are Chairman. I told Dr. Stock you also were chairing the last time we appeared before the subcommittee. We greatly appreciate the support you have given the North Central Soil and Water Conservation Research Center.

We would like to have our testimony entered into the record, and we would like to just summarize.

Senator BURDICK. It shall be received for the record.

[The statement follows:]

STATEMENT OF WILLARD R. MICKLISH, CLARENCE ETTESVOLD, AND DR. JOHN F. STOCK, M.D.

Our association has appeared before this committee in each of the past 13 years in support of USDA research in general, and in particular in support of the research efforts of the USDA program conducted at the North Central Soil Conservation Research Laboratory, Morris, Minn. We wish to thank you for the privilege and opportunity to once again appear before you in support of the NCSCRL's research programs. As active board members of our association of interested farmers and rural businessmen, we speak to the concerns of the agricultural community represented by the four-State region of responsibility designated for the NCSCR Lab.

In recent years, the Federal Government has, from necessity, followed and continues to follow tight budgetary policies. These policies have required various agencies to reevaluate their priorities and operational procedures to achieve maximum economic efficiency. In keeping with this, ARS has developed strategic plans that pinpoint and establish long-range national agricultural research priorities, directions, and goals. Strategic plan implementation requires reevaluation of programs at individual ARS research units. Recent newspaper and farm magazine articles quoting ARS leaders indicate reevaluations will occur and that some ARS programs will be terminated and others will be relocated and redirected. Such action can lead to more efficient fund utilization and improved output if accomplished in the right way. We are concerned about the continued viability of the research program at the North Central Soil Conservation Research Laboratory and urge that any proposed changes will best serve the needs of the land resource area covered by the lab.

The Morris Lab is presently staffed at about 60-percent capacity. We feel that research progress could most economically and effectively be achieved when laboratories of this size are fully staffed. We support the announced concept of resource consolidation for improved efficiency of research operations. We request that implementation of long-range plans that require consolidation and redirection of research programs results in full staffing of the ARS laboratory at Morris, Minn., with scientists of disciplinary backgrounds needed to fill out existing research teams.

The research program at the North Central Soil Conservation Research Laboratory at Morris, Minn., is directed to regional and national concerns that assist us in soil conservation and in agricultural production. The lab's primary mission is to conduct research on soil and water conservation and crop production problems in Minnesota, eastern North and South Dakota, and northwestern Iowa. The research team at the laboratory conducts ongoing research that addresses two currently identified high priority research areas. These are (1) the identification and control of factors associated with soil erosion that cause a loss in soil productivity, and (2) the identification and removal of barriers to crop yields. These efforts deal with improved water management, conservation tillage practices, improved residue management, nitrogen use efficiency, and erosion and water quality control.

The research programs carried out at the lab are often cooperative efforts with Agricultural Experiment Stations of the University of Minnesota and the USDA Northern Grain Insects Laboratory at Brookings, S. Dak. The lab's history of research accomplishments is to be envied, yet much more remains to be accomplished.

Our country's greatest strength is represented by the productive capability of its agriculture. As producers of agricultural products, we are concerned that future resources be allocated to insure improved crop production efficiency while maintaining our priceless agricultural soil base. It is absolutely critical that the United States maintain its dominant position in agricultural production while protecting and preserving its resources. We cannot continue to allow one-fourth of our 413 million acres of presently used cropland to erode at rates faster than it can be replaced by nature. As farmers, we are being asked to provide domestic and world food and fiber needs in the face of continually decreasing profit margins. This can only be accomplished through improved agronomic practices developed as a result of continuous, long-range agricultural research.

The productivity of the Morris Laboratory has been exemplary but has been restricted by budgetary and personnel limitations. These limitations must be removed. Therefore, we request that any planned resource consolidation land redirection result in complete staffing of the Morris Lab with fully qualified scientists of needed disciplinary backgrounds. Full staffing will make it possible for the laboratory to more quickly and completely fulfill its mission and will have a major impact on soil erosion and the long-term productivity of the major crop producing states in the Midwest. We strongly urge this subcommittee to honor our request.

NORTH CENTRAL RESEARCH LAB

Mr. MICKLISH. The previous testimony you had today shows the great concern we have for losing our greatest natural resource—soil. Fortunately, the North Central Soil and Water Research Center has that as a high priority; 25 percent of the United States total land is now in minimum tillage. This is the priority that we have at our research center. If we have 50 percent of the surface with crop residue left on for minimum tillage, we would save 80 percent of our soil. This is quite important.

Senator Burdick, 2 years ago when I appeared before you, we had lost three of our scientists. Thanks to you and your efforts, one of those three have been replaced. And our concern is that we do not lose the troops in the field—the soil scientists.

I would now like to introduce Dr. John Stock.

Dr. STOCK. Thank you.

MINIMUM TILLAGE

Besides my medical practice, I farm a homestead that has been in my family for years. For most of those 100-plus years, we worked with soil with traditional tillage methods. We saw the loss of large amounts of topsoil. For the last five seasons, I switched our farm to tillage methods compatible with minimum tillage.

During the last season, minimum tillage has become more widespread, with over 75 percent of our immediate neighbors participating. This is due to the efforts of Barnes-Aastad and the local soil and water research station. During much of last winter, we could see the difference. Instead of snodirt, which is a combination of snow and dirt—during a windstorm, this snodirt would blacken everything—this year, because of minimum tillage, we had relatively white snowdrifts. This is, of course, due to the direct effect of more residues from the surface and less topsoil becoming airborne. We used to think the topsoil that blackened everything came from North Dakota.

NEED FOR SOIL SCIENTISTS

Currently, much more research is needed to study the effects of pesticides and herbicides for maximum yield potential whenever minimum or no-till methods are practiced. My present concern is with the Federal Government budget. We must not cut down on soil scientists in the field. These scientists are the creative individuals who are solving the urgent problem of conservation of our most valuable resource, which is, of course, the topsoil. For the efficient use of Federal money, we suggest cutbacks, if they are to be made, be made not to the creative part, but rather by consolidation of administrative functions.

Thank you for your consideration.

Senator BURDICK. Thank you very much.

Dr. STOCK. Thank you.

WESTERN RESOURCE CONSERVATION AND DEVELOPMENT ASSOCIATION

STATEMENT OF MARY SECCOMBE, PRESIDENT

ACCOMPANIED BY MARK GOLDHAMMER, SECOND VICE PRESIDENT

Senator BURDICK. Our next group will be the Western Resource Conservation and Development Association, represented by Mary Seccombe, president, and Mark Goldhammer, second vice president.

Ms. SECCOMBE. Thank you very much, Senator.

I have already submitted written testimony, but I would like to touch upon a few of the problems that we are facing with the RC&D program and the funding for it. I am glad to be here to be able to testify on behalf of this program this morning.

[The statement follows:]

STATEMENT OF MARY J. SECCOMBE

Senator Cochran, members of the subcommittee, I am very pleased, as the president of the Western Resource Conservation and Development Association, to be able to appear before you today to testify on behalf of the resource, conservation and development program, better known as RC&D. As I have stated on many other occasions, I believe that the RC&D program is one of the best programs that the Federal Government ever invested in. President Reagan has said many times that he would like to see the Government given back to the people. This program certainly fits into that category. There are thousands of volunteers nationwide who work with this program. I am sure that if these people were pulling a salary, it would easily be a $1 billion program. Every dollar that the Federal Government has given to the RC&D program has been well spent in order to better our country through the conservation of our natural resources. Also, in 1982, a survey was taken for the year 1981, and we discovered through that survey that for every dollar the Federal Government had given us, approximately $34 million for 1981, these funds were matched 100 percent by other funds or by in-kind services. It would be hard for me to believe that any other program could make that statement.

However, we want you to know that we are plagued by various problems, those problems being: (1) the Office of Management and Budget (OMB); (2) inadequate funding; and (3) the staffing of our coordinator positions with full-time coordinators and full-time clerical staff.

First of all, the Office of Management and Budget insists each year, unsuccessfully I might add, that the RC&D program be phased out. The reason we have been able to keep our program and the appropriations for it is through friends like you in both Houses of Congress, the Senate and the House of Representatives. We thank you for the support you have given us and the confidence you have shown in us and our program. However, it does get a little upsetting each year for OMB not to put moneys in the administrative budget for this program, therefore leaving the task to the Representatives and Senators to restore the funds each year for it. Also, the U.S. Department of Agriculture (USDA) knows that people, such as ourselves, will come back each year to fight the battle to fund this program, and therefore, they allow us to fight the battles for them.

Second, we would like to thank you for funding this program each year as well as placing $5 million in the jobs bill for the RC&D program. The moneys in the jobs bill will help us a great deal on projects we have ready to go and yet are sitting on the shelf because we do not have the funds to start construction. Oftentimes we have to wait in order to get a project planned because we do not have enough technical assistance.

We have 194 RC&D's within the United States, but we only have 135 full-time coordinators. Many of our coordinators are part-time coordinators and part-time district conservationists. These positions are two full-time jobs and one person cannot, in any way, do justice to either position, as either the RC&D is going to suffer, or district work will suffer, or possibly both. It just cannot be done and done well. Other full-time coordinators are trying to cover more than one RC&D area. Needless to say, this is also an impossible task. Most of our RC&D clerical positions are on a part-time basis. Therefore, we are trying to operate this program with part-time coordinators and part-time clerical staff. Conserving our natural resources and working to better our community through economic development and growth is part of our goal. This is becoming harder to do every day when we have only part-time assistance. Also, we have other applications sitting on the shelf, I would say over 40, requesting to be made RC&D areas. This is also impossible since we do not have the help to staff the RC&D's we now have in existence. Yet, it is not fair to those requesting RC&D areas to let them sit there because of this reason.

Third, the $5 million funded to us through the jobs bill, as I stated before, will help us quite a lot. However, it is not nearly enough since we have $30 million in projects backed up for which we do not have funds to start construction. We have many other projects waiting in the wings to be planned, but we do not have the manpower in technical assistance to get these projects planned.

For years now, this program has been underfunded. We were at the $32 million mark for several years, and then it was increased to $34 million. However, during the last 2 years, due to cutbacks in the budget because of our deficit; the RC&D program also took its lumps and was cut back to $26 million. We are not complaining about it since we felt we were doing our duty too in helping to get our economy started upward again. However, now, we feel is the time to take action to get this program funded at the level we feel it should be.

We would like to see this program funded at the level of $50 million for fiscal year 1984. This would not be too great a figure, believe me. At a time when the economy is down, when so many people are out of work, here is a program that could put people to work immediately. Some of these people could be placed in positions of a trainee nature and learn while on the job. If we had the funding, we could have more projects being started, hire more persons for technical assistance for planning, plus fill all of our coordinator positions on a full-time basis as well as the clerical positions. We could do so much more if we had the funding to do it with.

The RC&D program is a grassroots, local people's program. People know the problems in their own areas and are able to work with the people to overcome them. We work on a volunteer basis, you might say we are a part of volunteer America. We have worked long and hard to keep this program because we all believe in the concept of RC&D, but we cannot do the task alone. We need the coordinators and clerical staff on a full-time basis, as well as to man all of the RC&D's with coordinators and clerks. We need more funding to get more projects started, more projects planned and put more people to work.

I would also like to add something about the rural development strategy. We felt that with the establishment of the Office of Rural Development Policy and the development of a rural development strategy, we would be able to assist in the areas of rural development since the RC&D program has been working with rural development for many years. Since RC&D's are established throughout the Nation, we felt that the tool was in place in many areas to assist in the implementation of this strategy. However, the final draft of the task force is now out, and since OMB had such a big say in it, RC&D was not included in this plan. Needless to say, we were very disappointed to learn this. We feel this is a big mistake since either the plan will never be implemented or in the long run, it is going to cost more money in order to put it in place.

In closing, I hope that you will agree to give more funding to the RC&D program at a time when it is badly needed.

I respectfully request that you consider funding the RC&D program at the level of $50 million for the 1984 fiscal year. Each of these dollars would be well spent and you would never regret such an appropriation to a program which has done so much with so little.

Thank you for allowing me to testify before you today on behalf of the RC&D program.

RC&D PROGRAM

Ms. SECCOMBE. The House and Senate passed the 1981 farm bill. The President signed it into law. Within that farm bill was the authorization for the RC&D program. However, to date, we still do not have regulations for this program, which in that authorization they were supposed to have come up with one, and today we do not have one as yet. I am sure this is because people within the Office of Management and Budget have decided that this program should be phased out year after year, and therefore, they will not approve a section rule being written. Without friends such as you and our people in the House and Senate who have restored those funds year after year, we wouldn't have the program we have today.

When the Office of Rural Development and its program were put together, we were hopeful that we would work with the RC&D program in the rural areas, and since RC&D's were already in place, the tool was there to work with. However, again, the Office of Management and Budget decided that the RC&D program was not going to be, and so, therefore, we were left out of the strategy. That final strategy has been written.

The funding program for RC&D included $32 million for several years, and then went up to $34 million. Then, of course, with the deficit spending, we took our lumps along with everyone else, and our budget was cut back to $26 million.

HIGHER FUNDING LEVEL

I would like to tell you that in 1981 we had a survey done of our program, and at that time we had $34 million. In that survey, throughout the 50 States, we found out that dollar-for-dollar that program was matched by other funds of in-kind services of $34 million. So it was matched 100 percent. However, we feel the funding in this program has never been at the level we feel it should be. We feel that with the funding that we have, we have really made tremendous strides and have done the best job we could with the moneys that we have. However, we feel that this program really needs more funding, and we are looking in the area of at least $50 million.

We need more technical assistance. We have 194 RC&D's in the United States. We have approximately 135 full-time coordinators. Some of the others have part-time coordinators and part-time conservation workers. Those are two full-time jobs. So, therefore, they are either doing half a job on both jobs or they are doing one job and not the other. Something has to give somewhere or something is going to suffer.

We also have $30 million in projects sitting on the shelf waiting to be constructed. We have a lot of projects that need to be planned, and yet we don't have the funds to do it with. We feel that with the economic condition in the United States as it is today, this is a program that could put many other people to work. We were very grateful for the $5 million that was given to the program in the jobs bill. Believe me, this money will be well spent. But we feel that with more funding, we could really put more people to work, more projects could be constructed, more projects planned, and more technical assistance given to the program.

I feel that we are bettering our country through conserving our natural resources with the program, working with our people on problems that we have at the local level. As Mr. Wordell told you earlier, the local people run this program at their levels on the problems they know exist in their area.

So, sir, we are requesting that you give every consideration on this committee to funding the RC&D program at least at $50 million. I know that you come from North Dakota. I have written you on numerous occasions. I know you have many RC&D's within the State. They are part of the Western RC&D Association and are some of our best supporters.

Thank you for allowing me to testify before you today.

Senator BURDICK. Thank you. Yes, we in North Dakota are familiar with the RC&D program, as you are in Montana, and we know the great things it has done over the years.

Do you have a statement to make?

Mr. GOLDHAMMER. Thank you, Senator, for allowing me to testify this morning. I have sent in written testimony, and I ask it be submitted for the record.

[The statement follows:]

STATEMENT OF MARC GOLDHAMMER

Mr. Chairman and members of the committee, this testimony is given and intended to cause this Senate committee to take a proper funding action for the proficient resource conservation and development program (RC&D). The past several funding levels have been far too low to serve the local needs and the intended scope of the program.

The Soil Conservation Service's (SCS) recent inconsistent management of the program results from two basic erodent problems. They are unrealistically low funding levels and the continued phase-out of the RC&D, prolonged by the Office of Management and Budget.

The combination problems of a low-funded program and the OMB's phaseout cause serious repercussions at the local level. The No. 1 problem is the lack of technical assistance in the form of coordinators, clerks, technicians, engineers, and the like. Some RC&D areas do not even have a full-time coordinator. The No. 2 problem is inadequate funds for cost sharing where construction is necessary to solve the problem.

We ask the Senate to take a positive approach to understanding the RC&D program and funding it at the proper level. We believe $50 million to be close to the proper level. Please keep in mind, with the local contributions exceeding the Federal appropriations, we still have a tremendous backlog of area projects needing technical and cost-share assistance.

We feel that the RC&D program is the best program that the Soil Conservation Service has to manage, even though it receives less than 5 percent of the total SCS budget. The RC&D program provides service and benefits to more people for fewer dollars than any program SCS administers.

In this tough economy, it is essential that the RC&D budget increase so local projects and priorities can again move forward. With adequate funding, on an annual basis, the RC&D program would be an excellent vehicle to provide jobs for the local people and at the same time complete projects that will benefit our citizens.

We formally request this Senate committee to support a substantial budget increase and supportive language removing OMB's phaseout of the RC&D program.

FUNDING OF RC&D PROGRAM

Mr. GOLDHAMMER. I would basically like to cover just about two points. Right to the point, the funding situation is a complete disaster in the program. I have been involved with it since 1964 as a farmer and rancher and chairman of the Soil Conservation District locally and chairman of the local RC&D committee. The problems are becoming more serious as time goes on. They fought very hard to get legislation to finally establish the program from a pilot project to a status that is an authorized program. The administration continually tries to phase it out, and, of course, with the help of people like yourself and this Senate committee have consistently funded and established it at least at a very, very minimum level. Of course, we have to say we appreciate being able to operate at a minimum level. I think the time has come when the seriousness of the local situations warrant a budget that finally allows the Soil Conservation Service to manage this program in a manner that is not only right for the local part of the country, but it is right for the whole country.

The Soil Conservation Service stewardship of Federal money for this program is just absolutely terrible as far as we are concerned on the local level. They never know where they are, and they never know where they are going. This year we went through a rescission of part of our funds, and local and State conservationists have a terrible time trying to manage. We could do a much better job with the program if we were allowed to go ahead and manage it with the funds that were appropriated. They haven't been able to staff the RC&D projects the way they should. We have anywhere from 35 to 50 coordinators short, and part-time and various other arrangements, as Mary told you about, and we need to get that problem off dead center. We have been playing around with that kind of business for about 4 years now, and it is time to get into an even, consistent program where things are going ahead and running smoothly.

I just beg this committee to seriously consider adding additional funding to that program, somewhere in the area of $50 million. We knew when we asked for authorizing legislation that this program was going to be a $60 million program, and I am sure the joint representatives who took an interest in this realized at that time it would eventually get to that point. I guess my example of where we are today is that on one side we have appropriations and we say we don't want to spend any more money than we have to. As a farmer and rancher in business, I can understand that because I operate my own business. However, on the other side, everything you don't pay for you stack on this side with the stack of bills. I would much rather try and keep my equipment and business in repairs on a consistent basis instead of allowing it to deteriorate than trying to get it all at one time with an unimaginable amount of money that you know you never are going to be able to accumulate to take care of the problems.

Senator, the only thing I have to say, other than if you or your staff have any questions or they don't understand what we are trying to do with the RC&D program, is that we have some of these accomplishments listed in a pictorial book. If the staff wants to take a look at it, I will be glad to furnish copies or leave it with you. If they need that to help them understand what is happening in the country on that program or if you have any questions, I sure wish you would ask them, so we could try and straighten this thing out that has been going on for too long.

Senator BURDICK. Thank you. The staff will be apprised that you will give some descriptive literature of the area.

Thank you both.

SOUTHWESTERN STATES RC&D ASSOCIATION

STATEMENT OF PAUL HUNTER, PRESIDENT

Senator BURDICK. Our next witness will be Mr. Paul Hunter, president of the Southwestern States RC&D Association.

Welcome to the committee.

Mr. HUNTER. Thank you, Senator. I am Paul Hunter. I have submitted a statement which I ask be entered into the record.

Senator BURDICK. It will be received and printed in the record.

[The statement follows:]

STATEMENT OF PAUL HUNTER

This statement is submitted in support of fiscal year 1984 and future appropriations for the Resource Conservation and Development (RC&D) Program. The statement illustrates the effectiveness and efficiency of the RC&D Program in accomplishing rural development. It quotes several times from "Better Country, A Strategy for Rural Development in the 1980's and shows the need for the RC&D Program to help implement that strategy.

The statement proposes two actions by the subcommittee:

1. A fiscal year 1984 appropriation of at least 50 million for the RC&D Program
2. Language in the appropriations act which would prevent any RC&D funds from being used to phase out the program.

I am a farmer in Labette County, Kansas, and have been a member of its Soil Conservation District Board for thirty-two (32) years. I have been a board member of See-Kan RC&D for fourteen years and served as its first president. I am now serving my fourth year as President of Southwestern States RC&D Association. Having been deeply involved in resource conservation for more than half my lifetime, I find it hard to understand the continuing budget problems of the RC&D Program, as this program has proven itself as a successful, efficient, cost effective vehicle for delivering rural development to all areas of the United States where RC&D's are operating.

The Congress, in the 1981 Farm Act, mandated an RC&D Program, and re-emphasized that madate in the FY 1983 USDA Appropriations Act which stated that no funds appropriated for RC&D were to be used to phase out the program.

The Congress, in the Rural Development Act of 1980, mandated preparation of a rural development strategy. That strategy, titled "Better Country, A Strategy for Rural Development in the 1980's" was transmitted to the Congress in February 1983. USDA Secretary Block in his letter of transmittal states, "The Federal role becomes one of support rather than direction, and the agenda for action is set principally by rural citizens themselves." This attitude is stressed throughout the strategy. This is exactly the way our RC&D areas operate. Local boards are made up of people from a wide variety of occupations and backgrounds. These local people decide which problems to try to solve, and which direction to move in trying to solve them. In most cases, federal involvement is limited to technical services and support of the RC&D coordinator and the Soil Conservation Service personnel.

Going back to the rural development strategy, Oliver W. Nelson, Co-Chairman of the National Advisory Council on Rural Development, which prepared the strategy states, "Delivery mechanisms or agencies for implementation of the strategy exist - they are available at the grass-roots level, they have withstood the tests of time, they have developed credibility, and they have the confidence and trust of local people and officials."

The strategy does not list RC&D's by name, but they are certainly among the effective delivery mechanisms referred to many times in the strategy.

The text of the strategy includes this statement: "An important overlay of regional and multicounty planning and development authorities has also been added to the rural landscape in the last decade, offering a level of coordination, technical expertise, and economies of scale unprecedented in the rural experience."

May I illustrate these points by citing recent actions by the See-Kan RC&D Board of which I am an active member as I stated earlier. Our See-Kan RC&D Board, which is incorporated as a non-profit corporation in the State of Kansas will serve as the local contracting organization for three Rural Abandoned Mined Land Program (RAMP) projects when these projects are approved by the Department of Interior. Our multicounty RC&D organization is best able to administer these RAMP projects. We have submitted three applications to the Department of Interior for about $900,000 to reclaim these strip mined areas. When approved, the RAMP funds will come through the Kansas Corporation Commission, the state agency responsible for reclamation in Kansas. The See-Kan RC&D Board will advertise for bids, let contracts, and supervise the administration of those contracts. We will receive technical assistance for engineering and installation from the Soil Conservation Service. These three mined land areas are priority sites selected by local conservation districts. We will work closely with the local conservation districts, and the Mined Land Conservation and Reclamation Board to carry these RAMP projects to completion.

I suggest to you that this action by local people is a prime example of how RC&D's are providing coordination, technical expertise, and creating economics of scale that were unheard of or had not been demonstrated before RC&D's were formed.

Another example of local leadership identifying problems and taking action to solve those problems can be demonstrated by the following: A new Army Corps of Engineers reservoir, Big Hill, was completed in the See-Kan RC&D Area in 1982. The drainage area above this reservoir is farmed intensely with erosion rates above acceptable levels. Evaluation of the future quality of water in this reservoir reveals it will degrade as the reservoir fills and continued runoff flows into the lake. High quality water is important since this reservoir is a future source of domestic water for numerous towns and rural water districts in the region. The lake is already serving as the recreation needs of area people. The lake opened to the public in July of 1982, and the Corps recorded nearly 300,000 visitors during the following four month period.

In an effort to protect the quality of water in Big Hill Reservoir, the See-Kan RC&D Board will sponsor a special project to accelerate the installation of conservation systems to reduce erosion and sedimentation. We are in the process of requesting funds to carry out a demonstration project which will measure the effect on water quality of installing conservation systems within the drainage area. Cooperating closely with our See-Kan RC&D Board will be the Kansas Department of Health and Environment, who will monitor the water quality and record changes over a period of years. The Kansas Fish and Game Commission will monitor fish production and evaluate the effect of water quality on wildlife production. We will work closely with local conservation districts and the Soil Conservation Service who will provide technical assistance and provide funding through Resource Conservation Act (RCA) funds if our application is accepted. Our board has been encouraged by state and federal agencies to proceed with the application for this special demonstration project. The Soil Conservation Service has stated such a special demonstration project is needed and will look favorably on our request.

May I quote again from the rural development strategy" "People at the community level, supported but not dominated by the State and Federal governments, can chart their own best path to progress."

Again, this quote describes exactly how RC&D's operate to identify and solve local problems.

Please allow me to describe briefly one additional project in See-Kan RC&D which will also illustrate how RC&D's operate to help local people solve their problems, and do so with a very modest outlay of federal funds. Two years ago the City of Thayer, in Neosho County, Kansas, with a population of about 600 people had to ration water because (1) their present water supply lake is too small and (2) four rural water districts serving several hundred farms had been hooked into the city's water supply. The city came to See-Kan RC&D and asked for assistance in developing an adequate water supply. See-Kan RC&D studied several alternatives and, with the city council, determined a new reservoir to supplement the present lake was the most economical way to solve their water shortage problem. The site selected was within the Tri-Creek Watershed District, which See-Kan RC&D had helped to organize a few years previously. Tri-Creek Watershed joined with the city and See-Kan RC&D in developing plans for a multipurpose structure to provide water supply for the city and the rural water districts it serves, and to provide flood protection for property downstream from the reservoir. On April 5, 1983, the city and watershed opened bids to construct this half million dollar reservoir. See-Kan RC&D assisted the city in obtaining $398,000 in FmHA-RC&D loan funds (the first in Kansas) at about 8 percent interest. See-Kan also helped the watershed board obtain $90,000 in cost-share funds from the State Conservation Commission which will cost-share the flood prevention portion of the structure. Local funds will make up the balance of the construction cost, and will, of course, repay the FmHA-RC&D loan.

During this two-year period, about $5,000 in RC&D funds was used for technical assistance on this project. This computes to at least $100 investment of state and local funds for each one dollar of RC&D funds spent on the project.

We believe it is a highly efficient way to use a few federal dollars to help solve a severe problem for many local people. This project will also generate about 57 man-years of employment.

Mayor George Reese of Thayer and Bill Estes, President of Tri-Creek Watershed District, both state that they would not have known how to organize this project and work through the red tape of applications for FmHA-RC&D loan funds, state grant funds, environmental assessments, A-95 clearinghouse review, easements, permits to construct, etc., etc., without the help of RC&D. This same thing is taking place in RC&D's throughout the United States, and is an example of the "coordination and technical expertise" I referred to earlier in my quote from the rural development strategy. If we are to implement any part of this rural development strategy, we desperately need the coordination and expertise of RC&D's in carrying out that strategy.

State Conservationists of the Soil Conservation Service, replying to a questionnaire in the spring of 1982, indicated a need for over 59 million dollars annually to carry out an effective RC&D Program. Speaking for Southeast States RC&D Association, I request this subcommittee strongly consider appropriating at least 50 million dollars for the RC&D Program in Fiscal Year 1984. I also request the appropriation bill, at whatever funding level is finally passed, contain language similar to that in the FY 1983 USDA Appropriation Act, which would prevent any RC&D funds from being used to phase out the program.

Thank you for your consideration of this request.

REQUEST OF $50 MILLION FOR RC&D

Mr. HUNTER. In view of the time limits, my summary will be very brief.

I am here representing the six States in the Southwestern States RC&D Association in support of the RC&D program and the appropriation for that program.

The statement I have submitted asked two things of this committee. First, fiscal year 1984 appropriations of about $50 million for the program that has been referred to many times this morning. I strongly support every statement that has been made concerning it. We also ask that language be included in the Appropriations Act, at whatever level the funding finally comes down to, that will prevent any of those funds from being used to phase out the program. I am sure you are aware that the 1983 Appropriations Act contained that kind of language. We ask that you include that kind of language again this year.

"BETTER COUNTRY"

My statement refers, in fact quotes several times from "Better Country," a strategy for rural development in the 1980's. I do not know the attitude of Congress toward the strategy except for Senator Leahy's remarks which I heard here this morning, but if that strategy or any substantial part of it is to be implemented in the eighties, then careful reading of that strategy certainly indicates we are in desperate need of organizations such as RC&D to carry out that strategy. I urge this committee to maintain a strong RC&D program that can take its proper place in carrying out rural development in the 1980's.

Senator, I thank you very much.

Senator BURDICK. Thank you very much for your short statement and, of course, your more expansive statement which you have submitted in writing.

Mr. HUNTER. Thank you, sir.

INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES

STATEMENT OF JACK H. BERRYMAN, EXECUTIVE VICE PRESIDENT

Senator BURDICK. Our next witness will be Mr. Jack Berryman, executive vice president of the International Association of Fish and Wildlife Agencies.

Mr. BERRYMAN. Thank you, Mr. Chairman.

RENEWABLE RESOURCES

Our association appreciates this opportunity to appear before your committee in support of the Renewable Resources Extension Act segment of the 1984 agriculture budget.

I think you are perhaps aware that our association is a voluntary organization and includes the fish and wildlife managing agencies of the State, provincial, and Federal Governments of the United States, Mexico, and Canada. All 50 States are members. As State and Federal agencies, with a trust responsibility for the management and well-being of fish and wildlife resources, our member agencies have a very direct and strong interest in educational programs on all aspects of renewable resources.

I would like to depart from my prepared statement at this point and indicate that since preparing this statement, the Wildlife Management Institute and the National Wildlife Federation have asked to be associated with it. And I have delivered a letter from the Federation to that effect and ask that it be printed in the record.

[The letter follows:]

LETTER FROM JAY D. HAIR, EXECUTIVE VICE PRESIDENT, NATIONAL WILDLIFE FEDERATION

APRIL 20, 1983.

Hon. THAD COCHRAN,
Chairman, Senate Appropriations Subcommittee on Agriculture, Rural Development and Related Agencies, Dirksen Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: The National Wildlife Federation fully endorses the statement of the International Association of Fish and Wildlife Agencies (IAFWA) in support of funding for renewable resource education. As this Nation's largest private, conservation-education organization, our highest priority is to provide objective public education on wise use of renewable resources.

In 1978 the National Wildlife Federation adopted a resolution in support of the Renewable Resources Extension Act (attached). Since passage of the act, a number of important steps have been taken toward implementing this important phase of extension education. However, as the IAFWA points out, there has been essentially no funding that would permit the program to truly get underway.

We hope that you will concur with the IAFWA's recommendation to provide $10 million for renewable resources extension education in fiscal year 1984.

Thank you.

Sincerely,

JAY D. HAIR, *Executive Vice President.*

RESOLUTION NO. 20

RENEWABLE RESOURCES EXTENSION PROGRAM

Whereas, the Cooperative Extension Service, composed of the U.S. Department of Agriculture's Extension Service and the Cooperative Extension Service of each State, provides to private landowners and others many valuable educational services through land-grant universities pursuant to the Smith-Lever Act (of May 8, 1914); and

Whereas, activities of the Cooperative Extension Service complement research and technical assistance programs conducted within USDA and other agencies; and

Whereas, the educational services provided to landowners and others by the Cooperative Extension Services historically have been biased in favor of agricultural production; and

Whereas, to meet national goals it is essential that activities of the Cooperative Extension Service be expanded to consider fully and equitably all renewable resources, including fish and wildlife, timber, forage, water, and related recreational and aesthetic qualities in designing educational programs to meet the needs of landowners and others while improving, where feasible, the condition of these resources; Now, therefore, be it

Resolved that the National Wildlife Federation, in annual meeting assembled March 16–19, 1978, in Phoenix, Ariz., hereby supports legislation, including the authorization and appropriation of suitable new funding, which will provide for an expanded and comprehensive renewable resources extension program.

ASSOCIATION'S BACKGROUND

Mr. BERRYMAN. By way of background, Mr. Chairman, efforts have been underway for over 45 years to develop a partnership between the State agencies, the land-grant universities and the Extension Service to provide the same kind of education on renewable resources as has been done so successfully with traditional production agriculture. These efforts have been strongly supported by this association, by the American Forestry Association, the Wildlife Management Institute, the National Wildlife Federation, and many others in the conservation community.

A great deal of progress has been made. The Fish and Wildlife Service established an Office of Extension Education to work with the Department of Agriculture and the sea grant program.

Passage of the Renewable Resource Extension Act of 1978 gave the necessary congressional recognition and direction to this important phase of extension education.

The reorganization of the Department of Agriculture and creation of a Natural Resources Unit soon followed and was necessary.

Agreements have been negotiated between the Department of the Interior, the Department of Agriculture, and the Department of Commerce.

The Fish and Wildlife Service has now negotiated cooperative agreements or working relationships with 44 State fish and wildlife agencies and land-grant institutions to strengthen and improve or establish new fish and wildlife extension programs.

The International Association, the association I represent, established an Extension Education Committee to encourage these cooperative relationships and to work with the respective State and Federal agencies.

Each of the States has named contact personnel to work with the Extension Service and the Fish and Wildlife Service and the sea grant program.

Thirty States now have fish and wildlife extension programs.

And finally, the Extension Service, in cooperation with the State extension services, prepared a plan of work in accordance with the requirements of the 1978 legislation.

All of this is simply to point out the steps that have been taken and the progress that has been made, all in anticipation of adequate funding and all to make certain that mechanisms were in place when funds became available.

NEED FOR ADDITIONAL FUNDING

The thing that has been lacking, despite the $15 million authorization that accompanied passage of the act, has been funding to get the program underway. With the exception of $2 million appropriated last year, the program has never been funded; $2 million distributed among 50 ready States, while greatly appreciated, was little more than seed money. Regrettably, the administration did not include funding for this program in its 1984 budget.

I would like to make the observation that education and the employment of education personnel is not something that can be turned on and off.

PUBLIC EDUCATION ON RENEWABLE RESOURCES

Mr. Chairman, one of the highest priority concerns of the organizations that have supported this program for so long is the need for objective public education on renewable resources and information to users and owners of these resources. There has been so much misinformation, emotionalism, and controversy that John Q. Public does not understand the issues or the choices which face society, and the owners and managers of these resources are unable to chart a realistic and sound course.

Suffice it to say that among our highest priorities and most urgent needs is education. We think adequate funding of this program is entirely consistent with the domestic economic situation. Obviously, proper management of our forest and range resources has economic significance. Through proper and timely advice to the owners and users of these resources, production can be increased to meet national needs, and equally important, these resources can be managed in such a way as to assure their future perpetuation.

Mr. Chairman, I can personally attest to the importance of fish and wildlife extension education, having established Utah's first program at Utah State University and later serving as Chief of the Office of Extension Education with the Fish and Wildlife Service when the partnership I have referred to was in its developmental stages. The cost-benefit ratio, the return for the dollar investment in this most extensive and existing educational system is high indeed.

In 1976, the Wildlife Management Institute sponsored a panel discussion at the North American Wildlife and Natural Resources Conference and subsequently reprinted the proceedings as a guide for those seriously interested in renewable resource extension education. It was specifically designed to further the cause of renewable resources education. I have already supplied a single copy of that reprint for the information of the committee.

[CLERK'S NOTE.—The information referred to above has been retained in the subcommittee's file.]

Mr. BERRYMAN. This association recommends that this activity be funded for 1984 at the $10 million level, only two-thirds of the amount authorized and needed. Attached also for the record is our association's Resolution No. 8 adopted in 1978 in support of funding for this program.

Thank you very much, Mr. Chairman.

Senator BURDICK. Thank you for your contribution.

[A copy of Resolution No. 8 follows:]

RESOLUTION NO. 8

RENEWABLE RESOURCES EXTENSION ACT

Whereas, Congress in 1978 enacted the Renewable Resources Extension Act, Public Law 95-306, by an overwhelming majority and authorized $15 million annually for 10 years beginning in 1979; and

Whereas, the programs authorized by this act are conducted by national conservation organizations, State fish and wildlife agencies and many land-grant universities; and

Whereas, a need exists for additional funds for the natural resources extension program of the U.S. Department of Agriculture and cooperative State extension services in order to provide educational programs for landowners and users of forest, range, and wildlife resources; and

Whereas, an unparalleled opportunity exists to enhance fish and wildlife resources of this Nation through implementation and funding of the act: and

Whereas, both the Federal Extension Service of the U.S. Department of Agriculture and the Office of Extension Education of the U.S. Fish and Wildlife Service, have complete plans to strengthen existing extension programs and to initiate new efforts where needed and have recently negotiated a Memorandum of Understanding. Now, therefore, be it

Resolved, That the International Association of Fish and Wildlife Agencies at its annual convention at Baltimore, September 13, 1978, hereby requests the administration to request and Congress to appropriate the full funding authorized by Public Law 95-306 to carry out the purposes of the act for each of the next 10 successive fiscal years, and be it further

Resolved, That the Congress and the Secretary of Agriculture take appropriate steps to insure that fish and wildlife resources receive a fair share of the appropriated funding.

NATIONAL MILK PRODUCERS FEDERATION

STATEMENT OF PATRICK B. HEALY, CHIEF EXECUTIVE OFFICER

ACCOMPANIED BY NEAL BJORNSON, DIRECTOR, LEGISLATIVE DIVISION

Senator COCHRAN [presiding]. Our next witness is Mr. Patrick B. Healy, chief executive officer, National Milk Producers Federation.

Welcome to the committee.

Mr. HEALY. Good morning, Mr. Chairman.

Mr. Neal Bjornson of our staff will join me in presenting the statement.

Senator COCHRAN. Good to have you here, Mr. Bjornson.

Mr. HEALY. Mr. Chairman, I am Patrick Healy, chief executive officer of the National Milk Producers Federation, which is an organization comprising virtually every dairy marketing cooperative in the country. I would like to have my statement filed for the record and will comment on it very briefly.

Senator COCHRAN. Thank you. It will be included in the record in full.

[The statement follows:]

STATEMENT OF PATRICK E. HEALY

We are pleased to have this opportunity to comment on the budget requests for the agencies of the U.S. Department of Agriculture as well as activities of the Food and Drug Administration. Specific recommendations contained in our statement include:

(1) An increase in funding and staffing levels to permit the Agricultural Cooperative Service to maintain present levels of operation.
(2) Report language and, if necessary, increased funding to secure adequate enforcement of food standards by the Food and Drug Administration.
(3) Funding of Child Nutrition Programs at levels sufficient to maintain present participation levels, re-establishment of the Speical Milk Program to serve all eligible children, expansion of the WIC program to $1.3 billion and maintenance of the School Breakfast, Child Care Feeding and Summer Feeding Programs.
(4) $200,000 to meet obligations under the Dairy Indemnity Program unless added funds are required to meet continuing problems in the State of Hawaii.
(5) An increase of $32.8 million to maintain funding levels for the Brucellosis Eradication Program of the Animal and Plant Health Inspection Service.
(6) An increase of $5,760,000 in funds for the Cooperative State Research Service for animal health and disease research.
(7) Direction to the Secretary of Agriculture to carry out the directives of the Congress to utilize dairy products held by the Commodity Credit Corporation.

AGRICULTURAL COOPERATIVE SERVICE

The Agricultural Cooperative Service of USDA is the only Federal agency charged with responsibility to assist agricultural cooperatives and their farmer owners in dealing with organizational, operating and management problems.

At a time when the income situation faced by American farmers has deteriorated steadily, there is greater need than ever for strong, effective cooperatives to assist farmers in holding the line on production costs and in obtaining the best return available in the market. Unfortunately, like their farmer members, many cooperatives today find themselves under increasing strain as a result of the choatic state of the farm economy.

This certainly is not the time to seek to reduce funding for this small but essential agency. The $779,000 reduction proposed for ACS, coupled with the personnel cutbacks would preclude the agency from responding to the needs of farmers and their cooperatives at a time when such aid is most needed.

The demands placed on the agency have increased over the past few years. The changing conditions under which cooperatives operate, the increasingly critical state of the farm economy and the desire of new groups within agriculture to avail themselves of cooperative marketing and supply arrangements have all contributed to this increased demand. Unfortunately, the agency has been hard-pressed to respond to these needs with present staffing levels. The proposed fund reductions would make such response totally impossible.

The resources of the agency represent the greatest concentration of skill and knowledge concerning agricultural cooperation in the United States if not in the world. Its activities in the past few years have touched the operations of farmers, producers of specialty crops with unique marketing problems and low resource producers to whom this assistance can mean the difference between continuing in business or being forced from the farm.

While it is true that some cooperative enterprises have achieved a size that allows them to perform much of the work they once relied on ACS or its predecessor organizations to perform, most of the agricultural cooperatives in the United States remain small operations lacking the resources or expertise to accomplish these tasks. As a minimum, Agricultural Cooperative Service Funding should be maintained at the $4,639,000 approved by Congress for the current

Fiscal Year and steps be taken to assure that adequate staffing is provided to meet the workload this level of funding will accomodate.

FOOD AND DRUG ADMINISTRATION

We urge the Committee to continue to investigate the extent to which the Food and Drug Administration is fulfilling its obligations under the Food, Drug and Cosmetic Act to enforce standards of composition and identity for many traditional foods. Lack of enforcement on the part of the agency creates the opportunity for fraud and deception in the marketplace, defeats the purpose of the Act, injures the consumer and presents the prospect of lost markets for agricultural producers.

We would hope too that the Committee would look further into the present situation with regard to enforcement of rules governing foods labeled "substitutes," since we have found products in the market labeled as "cheese substitutes" to be misbranded. These matters have been brought to the attention of the agency on numerous occasions with no effective response. FDA maintains that such enforcement is a low priority of the agency and that a lack of resources will force continued assignment of a low level priority to such work.

FDA is mandated by law to enforce matters relating to misbranding regardless of budgetary constraints. Because of the agency's unwillingness to enforce the law, we request the Committee to develop language in its report directing the allocation of resources to provide surveillance of misbranding practices where the identity of a food is promoted or compared with a food for which FDA administers a standard of identity.

FOOD AND NUTRITION SERVICE

The National School Lunch Program is the cornerstone of our child nutrition efforts. The effectiveness of this program, indeed all of the child nutrition programs, has in large measure been due to the efforts of this Committee over the years to maintain them as sound programs. We fully support adequate funding for the School Lunch Program to maintain its ability to meet the demands placed on it.

The combination of the curtailment of availability of the Special Milk Program two years ago and changes in the School Lunch Program has sharply reduced fluid milk consumption by school children. Federation members report that milk use in schools has dropped 20 to 25 percent during this period. This is alarming as milk is an essential nutrient source for children especially essential as a supplier of calcium, phosphorus, riboflavin and protein so important to healthful development during a child's growing years. The Federation supports legislation which has been introduced to reinstate the Special Milk Program to encourage additional milk consumption in the schools. Should this legislation be adopted, it is estimated that funding of $100 million would be required to meet the demands of the program.

The proposal to consolidate the Child Care Feeding Program, the Summer Feeding Program and the School Breakfast Program into a bloc grant operation was rejected by Congress last year and should be once again. These programs meet important needs in the overall child nutrition plan. A $40 million increase in funding for the Child Care Feeding Program is necessary to assure availability to the children of the working poor who are forced to leave their children in day care centers for extensive periods of time from breakfast through dinner.

Additional refunding is required to provide full effectiveness of the Summer Feeding Program. An increase of $45 million would permit private nonprofit sponsors to return to program participation on a limited and modest basis in the coming year. In addition, we support an increase of $5 million for nutrition education and training programs. This would merely maintain the program at present levels.

The WIC program is an example of a highly effective program dealing with one of the most critical nutritional needs of the nation. Present indications are that $1.3 billion will be required to meet program needs in Fiscal 1984. This represents a little more than $100 million over the level available for the current year assuming that the additional funds proposed as part of the jobs bill now under consideration is approved. This operating level would assure that women and children now participating in the program would not be barred from its assistance due to lack of funds.

DAIRY INDEMNITY PROGRAM

The budget request eliminates funding for this program. Outlays under the program have been modest in most years since it was initiated. In 1980, the program cost $92,000 and $43,000 was spent in 1981. Its availability, however, has meant the difference between continuing in the dairy business and being forced to disperse their operations for the affected dairymen. Indemnity payments are available to farmers whose milk is barred from the market due to the presence of residues of pesticides, other toxic chemicals or nuclear radiation. No producer is eligible for indemnity payments if the residues are the result of misuse of a product or other negligent act of the farmer. In the case of other toxic chemicals or nuclear residues, if the Secretary determines that the farmer has other recourse available, no indemnity will be paid. In the case of pesticide residues, it is incomprehensible that a farmer should be penalized for use of a product according to instructions and registration approved by an agency of the Federal government. Yet that is just what has happened in the past and what provided the basis for initial enactment of this program by the Congress. Last year, as part of the 1981 farm bill, Congress demonstrated its view that the need for the program continues by extending it for an additional four years. We recommend that $200,000 be made available for this program unless continuing problems in the state of Hawaii should require added funding.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The dairy industry is fully aware of the strong support of this Committee for the Burcellosis Eradication Program. Your efforts to assure adequate funding of the program and to secure effective use of these monies has been the primary element in the progress that is being made toward the eradication of this costly threat to livestock and public health.

Once again, the budget proposes significant reductions in funding and a redirection of the program toward a control effort rather than eradication. This approach is unwarranted and unjustified. It flies in the face of the findings of USDA's own Brucellosis Technical Commission and threatens the very significant gains that have been made toward the eradication of the disease.

The Federation supports an increase in funding for 1984 of $32.8 million. This would provide an operating level of $83.3 million. The same as approved by Congress for the current year. In addition, we request that the Committee initiate action to reject the deferral of funds approved for the current year as proposed by the Department of Agriculture. These monies are needed to maintain the momentum of the program in key areas of the country. Delays in making them available will mean reduced program effectiveness and lost opportunities in the move toward eradication. In the long term, such actions will be costly to both the government and the livestock industry.

AGRICUTURAL RESEARCH

The Federation recommends restoration of the $5,760,000 item for the Cooperative State Research Service program of grants for animal health and disease research. The funds available under this program have allowed concentration of research effort on animal health and disease problems of specific regions, thereby complementing research and disease control efforts of USDA.

The Federation has recently received disturbing news that an outbreak of an animal disease known as Vesicular Stomatitis in Colorado has spread east to Missouri and west to California. There are now 14 states with infected herds and an estimated total of 7,000 to 10,000 herds have been infected.

The disease is caused by VS Virus and attacks cattle, horses and swine and may cause influenze-like illnesses in humans. Not enough is known about the disease, but it can devastate a herd in a very short period, causing severe economic losses. The disease causes lesions which cause severe cases of mastitis in dairy cattle and a sharp drop in production.

It is extremely important to determine more about the causes of the recent outbreak and spread as VS lesions are indistinguishable from those of foot-and-mouth disease and major outbreaks of FMD in Mexico, the U.S. and Canada have occurred in the past and spread because they were initially regarded as VS and regulatory officials were not contacted.

USDA has formed a committee to determine the research needs to address this problem and to give direction in planning appropriate projects. We believe such efforts deserve the attention of this Committee and urge your support of them.

There is a definite need to provide funding to specifically encourage the Land Grant University system and the Agricultural Research Service to combine their resources to solve specific problems confronting the animal/livestock industries in a more coordinated fashion. The Federation strongly encourages the Committee to urge the Agricultural Research Service, the Cooperative State Research Service and the Extension Service of USDA to coordinate their efforts more closely to solve the more complex problems confronting animal agriculture.

DAIRY PRODUCT EXPORTS

A major effort of the USDA is directed toward expansion of export markets for U.S. agricultural commodities. This work has not applied to dairy products even though the U.S. is the world's second largest dairy producing nation. This is because so-called world prices for dairy products are determined by the export subsidy practices of some nations or groups of nations. Over the past three years considerable attention has been focused on the stocks of dairy products acquired by the Commodity Credit Corporation under the Dairy Price Support Program. The cost of the program and the level of these stocks resulted in major program changes in the 1981 farm bill and the Omnibus Budget Reconciliation Act of 1982. Pressure is being exerted at the present time for further program reductions.

On several occasions over the past two years, the Congress has urged USDA to use existing authorities to assist in the development of export programs. A provision included in the 1981 farm bill directed that such actions be taken to bring program costs in line with budget estimates. This Committee has provided similar direction which has been ignored. Nothing has been done in response to these urgings and directions. Continued efforts to bring this about are required.

FEDERATION'S RECOMMENDATIONS

Mr. HEALY. First, Mr. Chairman, we are recommending an increase in funding and staff levels to permit the Agricultural Cooperative Service to maintain their present level of operation. As a minimum, this means that the Agricultural Cooperative Service should be maintaining that $4,600,000 level approved by the Congress for the current fiscal year.

FOOD AND DRUG ADMINISTRATION

Second, we are recommending that there be report language at least, and if necessary, increased funding to secure adequate enforcement of food standards by the Food and Drug Administration. One of the things plaguing our industry today is the deceptive practice of food manufacturers in the marketing of foods which purport to be dairy products. The lack of enforcement on the part of the agency creates the opportunity for deception in the marketplace, and, in fact, defeats the whole purpose of the Act.

FOOD AND NUTRITION SERVICE

Third, we recommend funding of child nutrition programs at levels sufficient to maintain present participation levels; reestablishment of the special milk program to serve all eligible children, and a vehicle for that is contained in bills before the Congress—by Mr. Traxler in the House and by Senator Riegle in the Senate; expansion of the WIC program to $1.3 billion and maintenance of the school breakfast, child care feeding, and summer feeding programs. We recommend these particularly at this time because of the great surplus situation in the dairy industry and feel it is the wise use of dollars to encourage the use of this important food in feeding particularly the young, rather than to merely buy it and put it into storage. The dollars are really spent twofold—they promote nutrition, and they do indeed take the product off the market.

DAIRY INDEMNITY

The dairy indemnity program has been quite important in agriculture, because it insures farmers against the loss of their incomes when milk is dumped through no fault of the farmer. We think $200,000 will fund this adequately unless additional funds are needed to meet the almost tragic situation in Hawaii, under which heptachlor was used to treat pineapples and it became intermixed in the dairy feed. Some of those are serious problems.

BRUCELLOSIS

We are asking for an increase of $32.8 million to maintain the funding levels for the brucellosis eradication program. This would bring that program to a total of $83 million. We think that is particularly important, because we are about once again to bring that dread disease under control to the point it will not plague either the dairy herd or beef herd.

COOPERATIVE STATE RESEARCH SERVICE

We would recommend an increase of $5.7 million for the Cooperative State Research Service for animal health and disease research. We know, as we look into the near future, that dairy farmers are going to suffer in order to bring this current surplus situation under control. Therefore, they are going to need the research which does add to their productivity and will allow them, during these troubled times, to keep their farms viable organizations.

DAIRY PRODUCTS EXPORTS

And finally, Mr. Chairman, in the 1981 farm bill, there was a directive to the Secretary of Agriculture to sell in foreign trade the surplus stocks of milk which he holds. Just last year, the Senate passed a Senate resolution directing his attention to this directive and asking that he again devote himself to it. Actually, nothing has been done. Last year, in the appropriations bill there was report language calling his attention to this thing, which we all know would be quite vital. We would hope it would be included again this time.

Mr. Chairman, those are the areas we have come to address ourselves to, and we recommend them to you for your consideration.

Senator COCHRAN. Thank you very much, Mr. Healy. I appreciate your thoughtful review of the entire budget request in the area of jurisdiction by our subcommittee.

NUTRITION ASSISTANCE GRANT

There is a pending request by the administration that we combine some of the feeding programs into a general nutrition assistance grant to States. I think they include in that the school breakfast, summer food programs, and maybe one or two others. What is your reaction to that recommendation?

Mr. HEALY. Pretty negative, Mr. Chairman, because it excludes the use of commodities which have been bought and paid for and stored, and we think in the current situation it would be much more appropriate to provide the commodities which are currently owned by the Government. They are good food. They can be put to good uses and will not put new dollars out where the dollars already have been spent and exist in the form of commodities that can be used.

Second, we think that with the type of program that we advocate here, and the type of program that is currently in existence, there is much more careful supervision over the use of funds and over the programs themselves, than there would be were there just sums of money given across the country to the States and all of the school districts to use as they see fit. We think that the nutritional aspects of the thing would be addressed more carefully under the current system than they could be addressed under a block-grant system.

Senator COCHRAN. Senator Burdick, do you have any questions?

Senator BURDICK. I want to welcome you to the committee. I see you have your able assistant, Mr. Bjornson, with you this morning.

ANIMAL HEALTH AND DISEASE

With reference to some of these cuts that have been proposed by the administration, I believe that research on animal health and diseases is most important. I notice you are asking for the restoration of funds for the Cooperative State Research Service. Most of this is performed by our land-grant colleges and universities; is it not?

Mr. HEALY. Yes.

Senator BURDICK. And you regard the work they have done is of good quality and renders a good service to this country?

Mr. BJORNSON. Senator Burdick, the work done at land-grant colleges across the country is probably the most basic, important research being done in agriculture today—this particular animal disease research work in these institutions to address specific regional problems that perhaps would not be done. This is meant as a supplemental effort to the broad-scale work done by the Agricultural Research Service. This program is performing a great deal, and it must be continued.

Mr. HEALY. Senator Burdick, it would astound and discourage you to talk to some of the heads of the colleges in the land-grant college system and learn of the great reduction in recent years of scientist-years available to them to conduct this vital research. If we merely keep moneys available at a constant level, inflation does reduce the amount of work that can be done, and it is work which is well done and vital to the entire agricultural industry.

Senator BURDICK. Well, Mr. Healy, as I read the budget, there are certain functions that have been zeroed out completely.

Mr. HEALY. That is correct.

Senator BURDICK. I am sure you are aware of the programs; there are several of them. Is it your view today that we should at least keep the level of last year in all these areas?

Mr. HEALY. Exactly, it is a vital necessity, as is the marketing research that is done by the Agricultural Cooperative Service.

Senator BURDICK. Yes, I just touched on one of them. You have quite a list here, and I think they are vital also.

Mr. Chairman, that is all I have.

Senator COCHRAN. Thank you, Senator.

Thank you very much, gentlemen.

GEORGETOWN UNIVERSITY

STATEMENT OF THE REVEREND WILLIAM L. GEORGE, S.J., SPECIAL ASSISTANT TO THE PRESIDENT OF GEORGETOWN UNIVERSITY

Senator COCHRAN. Our next witnesses are the Reverend William L. George, S.J., special assistant to the president of Georgetown University, and the Reverend Harold Bradley, S.J., director of the Office of International Programs of Georgetown University.

We are happy to have you with us. We know you probably have heard we are encouraging witnesses to limit their oral presentations to the committee, so we will have an opportunity for questions.

Senator BURDICK. I would also like to welcome the witness this morning. I have known this gentleman for a number of years, and I am sure he has something good to say.

Father GEORGE. Thank you.

Members of the committee, I am Father William L. George, special assistant to the president of Georgetown University. With me was supposed to be Father Harold Bradley, director of international programs.

STUDENT EXCHANGE PILOT PROGRAM

I would like to suggest to the committee a pilot program that involves an agricultural international student exchange pilot program that would deal mostly with community colleges that would bring about 100 Central American students to the United States, 20 to each of five institutions. We estimate that a total project cost for that pilot project would be $1 million.

The advantages of using community colleges would be that students who couldn't ordinarily have an opportunity to get to the United States or to go to study in schools in Latin America could get here, because there would be no need for immediate English or foreign language training. It would be less costly, because tuition is less costly. But the schools themselves would set up their own program strictly designed toward agriculture. Each one would be unique in itself.

There would be an emphasis on a variety of things, as well as food distribution, accounting, and marketing related to some of the hard agriculture down there.

What stimulated the idea was that the Soviet Union has about 63,000 Third World students enrolled in their schools, spending about $325 million a year. We, last year, spent $30 million.

Senator COCHRAN. Was that $30 million?

Father GEORGE. $30 million. The Russians spent $325 million, and they got 5,000 students from Latin America. We gave scholarships to 781 students to study in the United States.

The unique thing about the program is we eventually want it to be funded by the exchange itself in which students from the community college agriculturally oriented in the United States would go to a college or university in Latin America. The only cost to the United States would be the administrative costs. The American student would pay his tuition to the United States and room and board, and would trade that to a student in Latin America who had his tuition, room and board and whatever paid for down there. So actually the exchange would take care of itself.

It has worked rather successfully with general universities and colleges, and we would like to suggest to the committee they consider it for community colleges, with an agricultural orientation.

I thank you. I would be happy to answer questions.

Senator COCHRAN. Thank you very much, Father George. I think this is an excellent suggestion. As you probably know, I am very much interested in seeing us increase our activities in the area of cultural and educational exchange. I think it is very important to us culturally. I think it is important to us economically. I am worried that the Soviet Union and Eastern Bloc countries seem to be doing more in this area, particularly with Third World students, than we are. I think in the long run this is going to be in our extreme disadvantage.

We questioned witnesses from the OICD when they appeared before our committee about the possibility of developing a student exchange program under the jurisdiction of that office. As a matter of fact, we discussed it last year at our hearings, and during the course of this year we have been working a little more actively in trying to develop some kind of program under the jurisdiction of that office which would focus mostly on agriculture students—students who are studying agricultural subjects.

I think your suggestion that we involve community colleges is one that certainly merits a great deal of consideration, and we will be taking this up with the administration and with the members of our committee. I am impressed with the fact that a relatively small amount of dollars would be appropriated for that program—as you suggest, $550,000.

Let me ask you this. The Caribbean Initiative the President has proposed includes a request for $4.4 million for Caribbean region students. Are you familiar with the details of that recommendation? I am not and wondered whether your proposal could somehow be folded into that or be under that umbrella so we would have more success in getting administration support for such a program.

Father GEORGE. Well, Mr. Chairman, I am not familiar with it. I think Father Bradley might be. I could ask him to submit something for the record if you would like.

Senator COCHRAN. Well, I am interested in continuing a working relationship with you and Father Bradley to come up with the mechanics of a program and see if we can't provide some money in this bill for such an educational exchange program. I know some of the colleges you identified in your statement are not traditional agricultural colleges—Los Angeles Community College; Mississippi Gulf Coast Junior College; Kirkwood Community College in Iowa; and El Paso Community College and Houston Community College in Texas. While they may have an agricultural orientation, or some students there might, I suppose the courses of students would not be strictly agricultural study but would relate to marketing or economics or some kind of related curriculum.

Father GEORGE. I presume, too, Mr. Chairman, they would involve a certain amount of courses in the traditional areas such as literature, geography, things like that. With a major in agriculture, you also take a few other things.

Senator COCHRAN. We hope so.

Well, I think you have been a big help to us. I am glad to know of your interest and Georgetown University's interest in a program of this nature. Let's stay in touch and work on coming up with something we can get implemented.

Father GEORGE. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Father George. Your entire statement will be printed in the record.

[The statement follows:]

STATEMENT OF REV. WILLIAM L. GEORGE

Mr. Chairman and members of this Committee, I am Father William L. George, S.J., Special Assistant to the President of Georgetown University. With me is Father Harold Bradley, S.J., Director of International Programs at Georgetown University.

We wish to suggest to your committee an agricultural international student exchange pilot program that would bring 100 Central American students to Community Colleges in the United States, 20 to each of 5 institutions. The students would be recruited through universities in their native country in Central America. These candidates will be chosen from among those who were not accepted into a local university because of weak preparation.

The advantages of using community colleges would be that the students could begin immediately to study academic material while they are learning English. Students in this two-year programs would be more likely to return to their home countries than ones who come for a longer program. The two-year programs which included English as a second language instruction with the academic courses would be less costly than a program which required instruction in English as a prerequisite to entrance. (The estimated savings to gained from the generally lower tuition of Community Colleges and from avoiding a preliminary intensive course in English as a second language is $418,000 per year for 100 students).

The educational programs, which will have a different emphasis in each participating school, will be agriculture related. They will be courses to prepare the students to work in the development of the supportive infrastructure for the more efficient production and distribution of the agricultural products which are so important to their economies. The courses will emphasize food distribution, accounting, marketing, etc. They will not be the equivalent of traditional courses in agriculture.

The estimated share of the cost for the Department of Agriculture the first year is $550,000. The estimated cost for the second year would be $200,000.

One of the ideas which prompted this request is that the Soviet Union seems to have developed the use of educational exchange programs to promote foreign policy more successfully than we have in the United States. The Soviet Union and Eastern European countries have, by State Department estimates, 63,000 Third World students enrolled in their schools and are spending $325 million for international educational exchange in contrast to $30 million being spent by the United States. In 1980 the Soviet Union offered scholarship grants to over 5,000 students from Latin America while we gave scholarships to 781 students to study in the United States.

After the first year we would propose that the program become an exchange program which would provide that an equal number of students from the United States community colleges and universities would go to the Central American universities, with the Central American governments paying their costs, so that the studies of the Cental American stuoents would be financed by exchanges.

On behalf of our President, Rev. Timothy S. Healy, S.J., thank you for the opportunity to appear before this Committee.

CENTRAL AMERICAN STUDENTS PROGRAM

We wish to suggest an exchange program to promote the development of agriculture in Central America. The program would bring 100 Central American students to community colleges in the United States, 20 to each of 5 institutions. The students would be recruited through universities in their native country in Central America. The candidates will be chosen from among those who were not accepted into a local university because of weak preparation.

The advantages of using community colleges for this training would be that the students could begin immediately to study academic material while they are learning English. Students in this two-year program would be more likely to return to their home countries than ones who come for a longer program. The two year program which included English as a second language instruction with the academic courses would be less costly than a program which required instruction in English as a prerequisite to entrance. The estimated savings to be gained from the generally lower tuition of community colleges and from avoiding a preliminary intensive course in English as a second language is $418,000 per year for 100 students.

The educational programs, which will have a different emphasis in each participating school, will be agriculture related. The courses will prepare the students to work in the development of the supportive infrastructure for the more efficient production and distribution of the agricultural products which are so important to their economies. They will emphasize food distribution, accounting, marketing, etc. They will not be the equivalent of traditional courses in agriculture.

The estimated cost for the first year is $1,000,000. Of this $855,000 would be for tuition and living expenses for the 100 students. The estimated cost for the second year would be $200,000.

After the first year we would propose that the program become an exchange program which would provide that an equal number of students from the United States community colleges and universities would go to the Central American universities, with the Central American government paying their costs, so that the studies of the Central American students would be financed by exchanges.

For instance, after the first year the community colleges participating in this program could become members of an international student exchange program. This program would provide a one-for-one student exchange for participating institutions where the institutions would provide the cost of education and living through their regularly established programs.

A similar student exchange program has been in existence for four years. During this time the participating institutions have exchanged 695 students with an overall exchange imbalance of only 8.5 students. That is, only 8.5 more students have come to the United States through the program than have gone abroad since January of 1979. This has demonstrated that a student exchange program can be financed so that the federal contribution for each student exchange is five times less expensive than conventional exchange programs. The idea is based on the premise that the cost of education varies little from institution to institution and from country to country. The difference lies in the way each institution meets these costs. Therefore, a year of education "purchased" at one institution can reasonably be exchanged for a year of education elsewhere. This program would provide the administrative structure which links the network of institutions world wide to encourage and facilitate the regular exchange of students on a fully reciprocal basis. Except for travel, the cost to participating students would be the same as if they remained at their home institutions.

The program would require funding only for administration, with all other program costs being provided by the member institutions and program participants. The similar program beginning in January 1979, has exchanged 695 students at a cost to the U.S. government of 1.4 million dollars or $2,014.00 per student. This year the per student cost will be reduced to about a thousand dollars for each student.

One of the ideas which prompted this suggestion is that the Soviet Union seems to have developed the use of educational exchange programs to promote foreign policy more successfully than we have in the United States. The Soviet Union and Eastern European countries have, by State Department estimates, 63,000 Third World students enrolled in their schools and are spending $325 million for international educational exchanges in contrast to $30 million being spent by the United States. In 1980 the Soviet Union offered scholarship grants to over 5,000 students from Latin America while we gave scholarships to 781 students to study in the United States.

While the United States is offering assistance to a relatively small number of students from elite families, the Soviets are recruiting students from the remote villages and the city slums and giving them free tuition, room, board, transportation, medical care and a small stipend. Even if a majority of these students are dissatisfied with the Soviet system, some will return to their homes dedicated communists.

To help offset the advantage of the Soviets we are suggesting bringing students from Central America to study in community colleges in the United States for a two-year program. The first year of the instructional program would include training in English as a second language and academic course work taught in the Spanish language.

Our current exchange programs suffer from two disadvantages. The first is that scholarships can only be offered to students who are already academically capable of studying at United States universities. The second is that scholarships can only be offered to those who have enough mastery of English to study at a United States university or that scholarships must be given to grantees to extend their studies, sometimes by as much as a year, while they improve their English skills. In the Soviet Union these foreign students are placed in separate institutions where their instruction is given in their native language. Of course this option is not acceptable to us.

The tentative course of study might be: first semester---6 hours of academic material and 6 hours of English as a second language; second and third semesters---9 hours of academic material and 3 hours of English; the fourth semester might be entirely academic coursework.

The students who take part in the program will be evaluated for their academic achievement and will be given a certificate indicating the successful completion of the academic course. Those who show promise that they would be able to successfully complete a course of studies at a university in the United State will be given the opportunity to return to complete the requirements for a four year Bachelor's degree.

This proposal has been discussed with representatives of five community colleges: El Paso Community College and Houston Community College in Texas, Kirkwood Community College in Iowa, Los Angeles Community Colleges in California and Mississippi Gulf Coast Junior College in Mississippi. The representatives of all of these institutions have indicated an interest in implementing this program.

We have discussed this proposal with representatives of the Department of Agriculture and they have indicated an interest in sharing in the responsibility of the administration of the program.

COOPERATIVE LEAGUE OF THE U.S.A.

STATEMENT OF TOM KRAJEWSKI, VICE PRESIDENT FOR AGRICULTURAL COOPERATIVES-GOVERNMENTAL AFFAIRS

Senator COCHRAN. Our next witness is Mr. Tom Krajewski, vice president for Agricultural Cooperatives-Governmental Affairs, Cooperative League of the U.S.A.

Welcome to the committee.

BACKGROUND OF COOPERATIVES

Mr. KRAJEWSKI. Mr. Chairman, my name is Tom Krajewski. I am vice president for Agricultural Cooperatives-Governmental Affairs at the Cooperative League of the U.S.A. I appreciate the opportunity to appear before you today to speak on behalf of the members of the Cooperative League in support of several programs that are vital to American agriculture, the American farmer, and the cooperatives that serve agriculture and the American farmer.

The Cooperative League of the U.S.A. is the U.S. cooperative organization drawing its membership from all types of cooperatives. Our diverse membership agrees on the economic and social values that are intrinsic to cooperatives—the values of local control, self-determination, and promotion of economic growth through self-help enterprises.

Mr. Chairman, I am here today to testify on three subjects: the REA program, the Agricultural Cooperative Service, and Public Law 480. These programs, nearly as diverse as our membership, are similar in that they assist in the development and growth of cooperatives and the economy.

Mr. Chairman, you are well aware of the underlying strength of agriculture in this country. It is our firm belief that a significant reason for this tremendous national asset is the cooperative systems we have had the foresight to establish and nurture. Our cooperative farm credit system, our cooperative rural electric and telephone systems, and our cooperative farm supply and marketing systems have all helped to harness the resources of our country's rural areas for the benefit of our farmers, our Nation's agriculture and our Nation.

REA LOAN PROGRAMS

Reliable and affordable electricity is essential if this country's farmers are to continue to produce the abundance of food and fiber which is one of our greatest strengths. The recommendations you have received from the administration on the guaranteed and insured loans administered by the REA are not adequate. You will hear more eloquent and detailed testimony from the National Rural Electric Cooperative Association and the National Telephone Cooperative Association, so I will not dwell on this topic. The Cooperative League urges the Congress to maintain the current ratios and criteria which govern the mix of loan funds from the REA revolving fund and from the private money markets, and it urges Congress to maintain the funding levels necessary to support them until Congress can act on NRECA's proposal to modify the REA loan program.

AGRICULTURAL COOPERATIVE SERVICE

The second area I would like to focus on is the Agricultural Cooperative Service. The Agricultural Cooperative Service is important to America's farmers and, consequently, to America's economy.

The American farmer has a proven ability as a producer, but today's economy requires that he be an effective marketer as well. The research and advisory services this agency provides farmer-owned cooperatives, helps to make the farmer a competitive force in the marketplace.

The vital service this agency provides for farmers is not unlike the services the Small Business Administration provides for the estimated 95 percent of the businesses that are eligible for SBA's services.

However, the Agricultural Cooperative Service is the only agency which can provide farmers with the needed information and assistance necessary for their farmer-owned businesses.

As you well know, much is expected of U.S. agriculture if Americans are to have a favorable balance of trade and a balanced budget. This places increasing demands on farmer-owned and controlled businesses. In such times, the Agricultural Cooperative Service is a wise investment on the part of Government, because it is best to help farmers meet those expectations.

Last year, Congress provided additional funding for work in the high priority areas of the export trade and financial performance of member cooperatives. These programs are especially appropriate for the times. Perhaps the greatest potential of cooperatives is in the area of exports. We have seen a greater interest by cooperatives for exports than ever before. There are new reasons to be involved with exports and new tools to make it happen. As this country moves to develop its exports, it is appropriate that farmer-owned cooperatives get a share of the market so producers can directly and immediately share in the benefits. Promotion and assistance by the Agricultural Cooperative Service can help to make this possible. If exports are our greatest potential, cooperative finance is perhaps our greater concern. Years of high yields, decreased demand and small margins have pushed many cooperatives higher. As cooperatives strive to work with PIK—the vast majority support the program because of their belief that it will be good for their member-owners even though it will be a severe blow to the cooperative—they will be even further extended. New research, programs and training to bring financial strength to some cooperatives is most important at this time. There is no way these two programs can be considered low priority. We urge continued funding.

PUBLIC LAW 480

A third and final area I would like to discuss is Public Law 480. Our members support increased funding for the Public Law 480 program. The benefits of Public Law 480 programs are as pertinent in 1983 as they were when the program began. First, the bulk of the programs offer foreign importers low-cost loans which make it easier for poorer countries to import food in the short run. Second, in the longer run, importers are brought into the international trading system, learn about importing and financing, and discover that the world markets can fulfill important domestic needs. Finally, increased food aid sales to the lowest income countries will lower U.S. stocks of agricultural goods and increase prices. These effects will, in turn, lower the costs to the Government of carrying stocks and deficiency payments.

Mr. Chairman, allow me to briefly explain how the Cooperative League uses Public Law 480 in developing countries in the Third World to strengthen economies, so markets for American agricultural products will either be improved or, in some cases, created.

In 1979, the Cooperative League was granted the largest Public Law 480 donation in the history of the program through the U.S. Agency for

International Development and the U.S. Department of Agriculture. Today, the Cooperative League continues to assist cooperative leaders in India in establishing a network of 8,000 cooperatives as a result of this Public Law 480. These coöperatives process peanuts and other oilseed crops for vegetable oil, which next to food grains is the most important component of the Indian diet.

A substantial portion of capital for the project came from the 130 million dollars' worth of U.S. soybean oil shipped to India under Public Law 480 for resale to consumers on the open market. The rupees generated through these sales are now developing these 8,000 cooperatives to be owned by Indian farmers, who grow, process, and market their own oilseed crops. As a result of the Cooperative League project, a new market for U.S. exports of soybean oil for direct consumption has been created in India.

The Public Law 480 program promotes economic development and helps bring world stability by increasing markets directly, and indirectly, for our country.

For these reasons, we urge an increase of Public Law 480 funding from the current $860 million to $1,600 million. This figure would equal the allocation to Public Law 480 of 1965.

We hope the committee and the full Congress will see the wisdom of these investments for economic development at home and abroad.

Thank you.

Senator COCHRAN. Thank you, Mr. Krajewski. I appreciate your being here this morning and making these observations for the benefit of the committee.

I notice, and you do, too, that the administration is proposing to reduce the REA loan programs by almost $2 billion. Are there adequate credit resources, out there in the private sector to take up this slack if we approve that reduction?

Mr. KRAJEWSKI. Mr. Chairman, I am not sure that there is. But even if there is, there would most definitely be a higher cost involved in that, and at a time when rural electricity is at a much higher rate than urban electricity and, of course, those costs would have to be passed on to the members. That would force an even greater cost on the rural areas of this country, and we simply don't believe it is fair.

EFFECTS OF PIK

Senator COCHRAN. You mentioned that many of your members supported the payment-in-kind program and were optimistic about its effect on the economic well-being of agriculture, but you said that the PIK program is a severe blow to cooperatives. Why is that?

Mr. KRAJEWSKI. Well, Mr. Chairman, the member cooperatives are farmer supply cooperatives, and their sales of fertilizer, seed, and petroleum are down substantially as a result of farmers simply not planting acres they otherwise would. So their sales are off.

Senator COCHRAN. How much are they off? I am really interested in getting some statistics on that. I think that while we are going to see some reductions in input supplies, we are also going to see a different kind of economic impact than we may be anticipating. For example, I see some seed dealers aren't able to meet the demand to cover crops that are going to be planted on diverted acreage. I also hear that farmers are probably going to apply more fertilizer and more chemicals and are putting more emphasis on getting higher yields on the cropland that is planted than is ordinary, and that with the increase in total revenues into our farms this year as a result of the PIK program at least, farmers will be able to pay their bills at co-ops where they are being carried on the credit roll. I am wondering about it.

Mr. KRAJEWSKI. Well, Mr. Chairman, I know that those factors you mentioned are in fact happening, and while sales for some variety of seeds are obviously up, others are down. While fertilizer sales to those farmers that are continuing to plant on those acres that they are continuing to plant probably will be up, in the final analysis the amount of acreage that is taken out is causing a reduction in total fertilizer sales. I do not have figures on that to date. I would be happy to attempt to get some for you. But I can say that one of our major members in the first quarter of this calendar year suffered tremendous financial losses simply because the member cooperatives—the local cooperatives—were not purchasing the supplies that are normally needed. Just the financial losses for the first 6 months this year were $50 million, and those are the kind of losses that simply can't be sustained for any amount of time.

Senator COCHRAN. I appreciate very much your taking time to be with us this morning and to share your thoughts with us. The committee will certainly consider your testimony very carefully as we try to decide upon the appropriate level of funding for these programs that you talk about. Thank you very much for being with us.

Mr. KRAJEWSKI. Thank you, Mr. Chairman.

[CLERK'S NOTE.—Subsequent to the hearing, the following letter and additional information was submitted by the Cooperative League of the U.S.A.]

LETTER FROM THOMAS G. KRAJEWSKI

MAY 4, 1983.

Hon. THAD COCHRAN,
Chairman, Agriculture, Rural Development, and Related Agencies Subcommittee, Washington, D.C.

DEAR SENATOR COCHRAN: When the Cooperative League presented testimony before your Subcommittee on Agriculture, Rural Development, and Related Agencies of the Senate Appropriations Committee, we briefly mentioned the impact the payment-in-kind program would have on agricultural cooperatives. At that time, we did not have hard data to share with you.

Since that time we have contacted a number of regional farm supply and local cooperatives around the country and have concluded that cooperatives will be seriously affected by the PIK program. USDA estimates that most farm supply businesses will suffer a 12- to 15-percent decline in sales in several product lines. Our research indicates that nearly every cooperative we contacted will suffer losses greater than estimated by USDA for every product line. While we agreed not to disclose numbers for specific cooepratives, we are able to tell you that this is also true of Mississippi Chemical Corporation.

I am enclosing for your use, a copy of our testimony before the House Energy, Environment and Safety Subcommittee of the Small Business Committee which provides more detailed information and also gives our recommendations to counterbalance the effects of PIK.

If I can provide further information, please do not hesitate to contact me.

Sincerely,

THOMAS G. KRAJEWSKI.

Enclosure.

STATEMENT OF THOMAS G. KRAJEWSKI, VICE PRESIDENT FOR AGRICULTURAL COOPERATIVES-GOVERNMENTAL AFFAIRS, COOPERATIVE LEAGUE OF THE U.S.A.

Mr. Chairman, Members of the Committee. My name is Tom Krajewski. I am Vice President for Agricultural Cooperatives-Governmental Affairs at the Cooperative League of the USA. I appreciate the opportunity to appear before you today to speak on behalf of the members of the Cooperative League on the issue of PIK and its effect on cooperatives. The Cooperative League of the USA is the U.S. cooperative organization drawing its membership from all types of cooperatives. Our members include farm supply and marketing, credit unions, housing, health care, food, mutual insurance companies, rural electric and telephone cooperatives.

Mr. Chairman, there is one point that I would like to emphasize from the outset. The vast majority of cooperatives support the Payment-In-Kind program. This is the case in spite of the serious problems it is causing us. Having said that let me briefly describe the agri-business climate when PIK arrived on the scene.

We have had record crops brought about by good weather and high productivity and a desire to outrun the cost-price squeeze. At the same time we have had weak and in some cases falling demand because of high unemployment and depression-like conditions at home, a strong dollar and a combination of policies of the present and previous administrations which caused export sales to drop. Strong supply and weak demand factors have caused prices to fall and have caused difficulties for the entire agribusiness sector. For example, the number of regional farm supply cooperatives which had net savings last year can be counted on one hand. Many suffered losses and those that did have net savings do not expect to do nearly as well this year. Among 14 of the largest farm supply and marketing cooperatives last year, losses outtotaled gains by $120 million dollars. This was the situation last winter when PIK was announced.

Given this situation it is reasonable to ask why most cooperatives supported PIK, a program which if successful promised to futher erode their businesses. Three comments can be made to explain this view. First and foremost-cooperatives exist to serve their member-owners. Cooperatives support PIK because they believe it is good for their member-owners. The member-owners agreed and signed up for PIK in record numbers. Secondly, cooperatives believe it is a good idea to eliminate the surplus stocks as quickly as possible so they do not act as a drag on prices and delay recovery indefinitely. Finally cooperatives supported PIK because they saw it as one part of a two-part attack on the supply-demand imbalance. At the same time that this country is working to correct the oversupply, we should also be working to increase demand. The belief that there would be a sincere effort to increase demand led cooperatives to support the program which will temporarily reduce supply.

USDA's Economic Research Service has prepared "An Initial Assessment of the Payment-In-Kind Program". We have reviewed that document especially the section describing the effect of PIK on the Non-Farm Sector. As you know, that assessment predicts a 12-15% drop in the dollar volume of seed, fertilizers and pesticide purchases and a 8-10% drop in the dollar value in fuel purchases. Mr Chairman, we have contacted Regional Farm Supply Cooperatives in the Northeast, the Southeast, the South, the Midwest and the Northwest and in every case but two, all of these cooperatives said that their sales volume (in dollars) would drop due to PIK by a percentage greater than estimated by USDA. Except for one cooperative estimating petroleum sales down 8 to 10 percent and another cooperative estimating the sales of seed down 6 percent, every cooperative expected the sales of fertilizer, petroleum and seeds to be down more than USDA estimates. Each of the cooperatives we contacted said fertilizer sales would be off between 18 + 24%. Fuel sales are expected to be down between 17 + 35%.

Farmers will have a gain from PIK on the farm. Their off-the-farm business will suffer. We attempted to gather actual sales figures for the first three months of this year but were unsuccessful. These figures would not be helpful for two reasons. First it has been a wet, slow and non-existent spring until this week. This factor coupled with the tremendous disruption of PIK has delayed purchases of agricultural inputs. PIK has significantly changed the equations and the calculations farmers use to decide what and how much to plant. Because of this they have forestalled purchases which, has changed sales patterns. This disruption in the normal marketing year makes planning makes planning more difficult.

It is also important to note that many farm supply cooperatives rely heavily on these three or four inputs for the vast majority of their sales. They do not have significant other product lines to fall back upon. What can be done to help assure that cooperatives do not receive another severe blow next year?

We must go back to that supply-demand equation and work on the demand side. We must work to increase the demand for agricultural commodities to help clear the market and to assure that future production can find a home. This means:

1. Being absolutely serious about contract sanctity. For a number of years we have taken actions-actions which speak louder than words which demonstrate that we are less than serious about being mature responsible trading partners. The method in which the contract sanctity language was adopted and approved did not inspire confidence. We have a long way to to go to show we are a reliable supplier and one false step will land us back at the base of the mountain with a long climb before us.

2. We must begin to take the attitude of being an agressive seller. If our customers want a long term agreement, we have to be ready to supply it or they will get an agreement elsewhere. For too long we have been content to say we do not do business that way. If the world is going to do business by way of long term agreements, we must get in step or we will be left out.

3. We must expand the PL 480 program. The Pl 480 program works to immediately reduce surpluses. In addition, if used correctly and constructively, works to promote economic development and long term demand for our products.

4. We must be prepared to meet the prevailing market price by having surplus or over production sales where bonuses are provided when purchase quotas are met.

5. We must be realistic about the price of delivered products and realizing price includes all costs including financing and delivery. It makes no sense to give cut-rate financing and then require a mode of shipping which wipes out the minor advantage of the shipping.

These are five suggestions we feel will be helpful in increasing demand so that future PIK programs are unnecessary.

We commend the Committee for holding this hearing and appreciate the opportunity to testify.

Thank you.

STATEMENT OF HARVEY STROTHMANN, VICE PRESIDENT, MFA INCORPORATED

I am Harvey Strothmann, Vice President - Plant Foods for MFA, Incorporated, and also one of thirty-nine directors of The Fertilizer Institute with headquarters here in Washington, D.C. MFA, Incorporated is a regional farm cooperative headquartered in Columbia, Missouri which supplies over 200 individual retail outlets in Missouri and adjacent states. We are in an ideal position to observe, as well as experience, many of the problems to be discussed here today.

The significant enrollment by the American Farmer in the Payment-In-Kind (PIK) program has been characterized by the Secretary of Agriculture as "breath-taking", and beyond his "wildest expectation". This program obviously achieved this status because it was the only band-aid left to keep our farmers from bleeding to death. They needed it to survive. We all needed it to keep the foundation of our food production from crumbling. We support it.

But, very simply, what would happen to hospitals, the doctors, nurses, and the multitude of support services if 25% of the patients suddenly got sufficient band-aids from the government and at least for a year didn't need the hospital services. Would they still be there when needed?

We have all gotten caught up in saving the patient because all of us recognize we so desperately need our food producer that we have not given serious attention to the side effects of the treatment We also need to recognize that it is ill-advised to create irreversible damage to those within the service area and who need to remain viable in order to be able to continue meeting the needs of the patient.

Explanations of many of the side effects have been passed over with such comments as, in the words of the Secretary, "there's a down side" to the program or "the suppliers are not going to sell as much this year". And this follows on the heels of an already depressed economy that has had these same suppliers already struggling for survival.

Economists develop figures and make projections. We continue to hear about acres and percentages. In the fertilizer business we hear estimates of reduced nutrient tons and reduced product tons. Obviously if we are going to recycle a part of our farm production, we won't need as many imputs. The USDA "Initial Assessment of the Payment-In-Kind Program" issued in April projects the fertilizer use decline of 12 - 14% from 1982. Chase Econometrics estimates this decline at 12 - 17%. You may have seen or heard these percentages, but the real impact comes when we recognize that low farm prices had already caused a nation-wide decline in 1982 of 10% in fertilizer usuage from the previous year or now a 2 year decline of 22 - 24%. My home state of Missouri was even worse with a 1982 decline of 20% which could now, with PIK, become as much as one third less than two years ago.

But even this is often pushed aside with comments that fertilizer suppliers are big companies or conglomerates; and yes, they'll have a hard time and may need to close a plant or two and lay off a bunch of workers to cut cost, but they will survive somehow. My purpose here today is not to debate percentages or tons or the viability of major fertilizer suppliers. Instead, we need to focus our attention on the small guy in between, perhaps best described as the farm supply vendors -- the thousands of individual small retailers, whether a cooperative or an independent dealer, who service this massive and efficient agriculture enterprise.

One who is not familiar with this total production supply chain cannot comprehend the logistics and investments involved. I shall limit my comment to only one area -- that of fertilizer.

It is not uncommon to read about interruptions in some manufacturing such as an automobile because the production of some small part is interrupted for one reason or another; or to experience in our private lives some delay in a repair job and have it explained as, "until we get the part in".

Gentlemen, when farmers need to plant they can't wait to get the part. There aren't really very many planting days in the year. For some crops there are very few, and some times none if the weather decides not to cooperate. Missing the cutoff date for planting does not mean that the farmer can plant the following week. Rather, it means next year. My point is that in order to service agriculture on a timely basis with the massive needs of fertilizer alone, these thousands of vendors up and down the road have much more at stake than just a "hole in the wall" office.

To begin with they have untold millions invested in storage facilities alone. You cannot move phosphate from Florida, potash from Canada or nitrogen from Louisiana into the bread basket of the Mid-West overnight, and especially not into the many rural areas that have experienced rail abandonment.

Someone must and does provide this fertilizer storage -- the guy in between. Most of this storage is specialized and expensive, and cannot readily be used for something else. Additionally, all of these facilities include some type of mixing or blending equipment to prepare the special analysis the farmer may need for his specific crop.

According to the Missouri Fertilizer Control office, in Missouri alone, there are 485 such facilities for dry blending, and 149 for liquid blending for a total of 634. Investments for this alone can range from $50,000 to $500,000 with most locations over $200,000. Additionally, 325 of these locations also have special high pressure storage for the nitrogen fertilizer, anhydrous ammonia. That specialized storage alone can range from $25,000 to over $100,000. But that's just a beginning.

In most cases these in between businesses also furnish various specific and specialized application equipment suitable only for the application of fertilizer. The various pieces of application equipment can range from $2,000 per unit to well over $80,000 for a specialized truck applicator. For most to provide the service required in a short period of time, several such pieces of equipment are necessary. It is not uncommon for a single location to have another $100,000 - $300,000, and some much more, invested in application equipment alone. This equipment depreciates fast, some with depreciation schedules as low as 5 years, not so much from the volume throughput, but rather from fertilizer corrosion. In other words the equipment deteriorates even if it isn't used.

Up to now, we haven't yet talked about the advance planning and sometimes contracting necessary to get the product hauled to the storage facilities. It takes arrangements for thousands of trucks, some of which must be contracted in advance; rail cars and tanks cars, some of which must be leased at least a year in advance; it takes arrangements for credit to get suppliers to ship. Some of these in between vendors have additional equipment for this purpose, or need to enter into trucking contracts or rail leases to get the job done. It took a lot of advance planning many months before anyone ever heard of PIK; and to get ready for 1984, the same people will need to begin planning and contracting in July.

As one example, in order to get anhydrous moved on time in the area we serve in Missouri, the needs of a number of our individual vendors are consolidated and jumbo rail cars are leased to transport this material. This must be done during the summer months prior to the spring season. Right now, we have about 1/3rd of these cars standing on the siding because of reduced sales potential. This cannot be attributed to mismanagement. How is the small vendor supposed to survive with such uncertainity?

The point is that most of these costs in storage facilities, blending facilities, or specialized application equipment are not reduced with reduced volume. That vendor can not sell a part of his storage or a part of his equipment or get out of a part of his payment to the bank because the government has now decided to reduce the need for his services by 15 or 20 or 25%, or perhaps a 1/3rd of the volume in 2 years. His competitor doesn't want it either because he is in the same fix.

If we would truly not need him again and possibly real soon, it would be an entirely different matter. Our erratic off again, on again; all out production or reduced production; PIK or produce for PIK; and mostly all last minute decisions has created some very drastic side effects.

~~In summary~~, we fully support the PIK program. Our farmers need it for survival. At the same time, a very large portion of the same farmers have equity in their cooperative supply vendor, or are highly dependable on the services of such vendor whether independent or cooperative. These are keys to the efficiency of our agriculture production and must survive as much as the farmer.

Three broad recommendations come to the forefront.

First, for immediate consideration, the government induced reduction in sales volume being experienced by most of these individual supply vendors is not a product of their mismanagement or one for which they could have planned. Many have substantial capital investments in specialized storage and equipment not suitable for any other purpose, and which is not obsolete but will be needed in the future. Many have financial commitments with substantial interest cost for these facilities. Some type of temporary relief in these cases must be developed.

As a minimum, financial institutions, especially the Farm Credit System, should continue meeting the credit needs of the supply vendors who, through no mismanagement of their own are facing undue financial burdens. Outstanding loans of businesses adversely affected by PIK should be extended at reasonable rates until farm prices and farm income improve, and production returns to more normal levels.

Second, for the future, dedicated effort must be given to developing a much more stable agriculture policy and agriculture economy that eliminates the need for a PIK band-aid for which no one can plan or manage, and for which many segments of the economy suffer.

MFA has repeatedly called upon the Administration to implement an adequate paid diversion program as authorized by Congress to improve farm prices. Yet the Administration continued to operate farm programs at near minimum-levels. Only when the farm economy deteriorated to a crisis situation, and stocks of agriculture production had built to burdensome levels, did the Administration take effective action by implementing the PIK program. It would have been less costly to the government, farm prices would have been more reasonable, PIK would have been unnecessary and the side effects upon all agri-business would have been much less severe if such adequate paid land diversion program had been implemented during the past two crop years. Preventive medicine is preferable and certainly less costly than extensive remedial surgery.

Third, the real answer lies in finding substantial and dependable markets for agricultural production. Too much emphasis has been placed upon reducing this production and not enough emphasis on expanding demand. The blended credit program and the subsidized flour sales are steps in the right direction -- at least a start. In addition, we urge that the agriculture credit revolving fund be adequately funded and that the Administration be required to use the funds as needed to increase farm commodity exports.

If then it should still be necessary to cut back agriculture production in order to bring supply more in balance with demand, we urge our government to work more closely with the governments of major exporting competitors to effect a reduction in their production also. It is obviously unfair to the American farmer and his suppliers to bear the brunt of production curtailments with no restraints on other major exporting countries.

When looking for increased world markets for our agricultural production, such activity should not be restricted to grain alone, but also in the many additional areas of upgraded agricultural products such as processed meat and grain.

Adopting the above measures as proposed would do much to improve prices and income for the farmers and bring stability to agriculture.

Mr. Chairman, you and your committee are to be commended for holding this hearing to explore the effects of PIK upon small business. We thank you for the opportunity to express our views.

STATEMENT OF J. DAWSON AHALT, ACTING DEPUTY UNDER SECRETARY FOR INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS

Mr. Chairman and members of the Committee, I appreciate the opportunity to appear before you to discuss the Department's Payment-in-Kind (PIK) program and what we estimate will be its potential effect on rural areas.

Last fall, as worldwide demand continued to falter in the face of back-to-back record crops, it became obvious that bold and innovative steps were needed to deal with the situation. Secretary Block began meeting with commodity groups, agricultural leaders, the input supply industry and members of Congress to discuss the severity of the problem and to seek solutions. Out of these discussions, the idea of a large payment-in-kind (PIK) program to reduce production and stocks clearly sparked the most interest. In fact, the more we discussed the idea, the more widespread the enthusiasm became.

The development and sign-up phases of the PIK program are now history. Sign-up exceeded our expectations. Roughly 81 percent of the base acreage of the five PIK commodities (plus barley and oats) was signed up in the PIK and other acreage reduction programs. About 82 million acres, or 1/3 of the base acreage may be taken out of production and put into conserving uses in 1983. It should be noted, however, that this is the upper bound that may be removed from production. This is because of the 82 million acres -- 13 million are only in the acreage reduction and paid land diversion programs. In this case, producers have additional time to determine if they want to comply with the program. Market expectations and emerging weather patterns will be dominant factors influencing producers' decisions.

While substantially reduced plantings in 1983 point to a cutback in current year demand for agricultural inputs, the PIK program will maintain commodity supplies in the market. Thus, producers' cash receipts can be maintained. And with reduced outlays, net returns will help improve farmers' financial positions which are crucial to set the stage for a future recovery in the agricultural input supply industry. I believe this is important.

Even with depressed conditions in agriculture, farmers in recent years have been spending over $140 billion on production inputs. These large production outlays in the face of depressed commodity prices have put many farmers in a tight financial situation. Moreover, even this level of purchases has not been able to keep a number of farm input manufacturers and dealers from experiencing hard times. Hence, something had to be done to brighten the future. The PIK program has already boosted farmers' spirits. I know some in the input industry are concerned. Others have taken positive steps to deal with the current setting.

As we look at the impact of this program, Mr. Chairman, I urge that we not lose sight of our long term objective. We need a sustainable economic recovery and we need a healthy agriculture. The two are obviously related. We believe the PIK program is a temporary step to help further the restoration of prosperity for our farmers. With that improvement will come better times for all industries involved in agriculture and rural America.

Effects on the Nonfarm Sector

With substantially fewer acres planted, current year demand for farm inputs will decline. Farmers will use less seed, fertilizer, fuel, and pesticides and will need less operating capital. Farmers will also reduce use of farm equipment, thus extending its life and reducing the need for repairs. It is important to note that the 1983 PIK program only allows voluntary reduced plantings of the major grains and cotton. Acreages of some other crops may expand, and haying and grazing have increased. Moreover, the improved cash flow positions that many farmers are likely to experience because of reduced production expenses and larger income should allow many operators to reduce debt or make capital purchases that they have delayed because of future prospects. Overall, total input use is expected to decline 5 to 7 percent in 1983.

Impacts on the input industry will be the most pronounced in the short-run and will vary from region to region. However, with the 1983 programs in place we expect the financial health of the farm sector as a whole to improve markedly. Commodity prices have already increased significantly. As our export markets strengthen, coupled with a stronger domestic economy, input demand should improve. This is in marked contrast to excessive commodity stocks that have been overhanging markets and depressing prices for several years.

Fertilizer use this year is likely to decline by about 12 to 14 percent. With the industry already suffering from serious excess capacity due to slack demand, some additional production facilities -- primarily ammonia plants -- may close. Since fertilizer prices are also likely to soften, the drop in fertilizer manufacturers' revenues will be greater than the decline in use. This effect will extend to fertilizer retailers, particularly in the major corn-producing areas, where the volume of business could drop off more sharply than in other areas.

The farm machinery industry has been under considerable financial stress in recent years due to the downturn in the farm economy, strong foreign competition, and high interest rates. The impact of the PIK program on farm machinery expenditures can be divided into two parts: 1) outlays for machinery, equipment, autos, and trucks; and 2) expenditures for parts, maintenance, and repair of existing equipment.

Farm machinery sales which totaled about $10 billion in 1982 are expected to be the least affected of all farm inputs by the PIK program. Farm machinery purchases as a result of reduced acreage are estimated to drop 2-3 percent. Further reductions in machinery sales and profits are of serious concern to the industry. However, since machinery sales are more closely related to farm income than plantings, improvements in income prospects resulting from the PIK program could possibly result in a slight increase in machinery sales.

Farm machinery sales have been dropping each year since 1979. However, unit prices have been rising throughout this period. Consequently, dollar volume has not dropped nearly as much as unit sales. Still, some machinery manufacturers are in financial difficulty.

The overall demand for maintenance, parts, and repairs is expected to decrease by 12 to 15 percent with the expected decline in planted acreage. However, per acre costs for maintenance and repair tend to increase with reduced acreage because there are certain fixed costs incurred regardless of acres.

Use of pesticides is expected to drop 12 to 15 percent. Pesticide use dropped 3-5 percent in 1982 and was expected to drop about that much again in 1983 under the previously announced programs. Expenditures would be down slightly more because of an expected modest price decline due to the reduced demand. While crop production accounts for about 95 percent of all farm pesticide use, crops involved in the PIK program account for about two-thirds of all crop pesticide use.

The impact on the basic pesticide manufacturer will be negligible, as farm pesticides account for less than 10 percent of the total revenues of nearly all such producers. Thus, a drop in farm pesticide sales of 12-15 percent would result in a total sales decline of less than 1 percent for all pesticide producers. Pesticide distributors and dealers who specialize in farm chemicals will be more seriously affected. However, pesticides generally account for a small share of sales of farm input suppliers. Some custom applicators, particularly those servicing the cotton industry, may suffer a more substantial loss of business. In general, however, the long-term effects of the PIK program on any segment of the pesticide industry should be minimal.

These expectations for pesticide useage assume normal weather and pest infestation. Of all farm inputs, pesticide useage is most affected by unforeseen occurrences. For example, if the cool, wet conditions we have recently experienced continue in the Midwest, greater soil insect and weed infestations may occur and additional pesticide applications may be needed.

Seed producers and retailers, particularly those concentrating in the principal program crops of wheat, corn, sorghum, upland cotton and rice, will be more severely impacted because of the direct relationship between acreage planted and seed use. The PIK program could reduce overall expenditures for seed by as much as 12-15 percent. At maximum levels of participation, quantities of corn and wheat seed purchased by farmers could decline about 17 to 27 percent, while cotton seed purchases may be down about 20 percent and rice 25 percent. Sorghum seed purchases could be down nearly 20 percent in 1983.

The market for hybrid corn seed is dominated by a small number of relatively large firms. These firms are likely to be able to withstand the potential reduction in demand as a result of the high level of PIK participation. There are several small seed corn producers, however, who were in financial difficulty before this year and are likely to experience further financial losses as a result of PIK. The greatest impact on seed sales will be in the western fringe of the Corn Belt where participation was high.

Producers of grass and legume seeds, on the other hand, are already experiencing a surge in demand and substantial price increases, because these seeds will be used for cover crops on the sharply expanded conservation use acreage. Some regional shortages of these seeds have been experienced.

Energy use is expected to decline by 8-10 percent. Liquid fuel use will fall by more - about 25-30 percent. Except for those cases where farmers are the primary clientele and program commodities are the primary farm enterprises, lower fuel use will have little effect on wholesale suppliers or retailers.

Despite reduced production, the PIK program is expected to improve the cash flow position of many farmers in 1983 and 1984 and, in turn, reduce their credit needs and outstanding debt. Operating credit needs during 1983 are expected to decline by $2.5-$3.0 billion due to the PIK-related reduction in input expenses. This decline is expected to be mostly for short-term borrowing rather than for intermediate or long-term credit. An additional reduction in demand for operating credit can be expected as a result of the added capital available to farmers from direct program payments made in 1983. Direct payments to farmers will also permit them to reduce outstanding debt, improve liquidity, and replace depreciated capital items toward the end of the season.

The employment effects of PIK will be negligible due to the capital intensity of most input industries. But some regional or local impacts on employment and economic activity in the food- and fiber-processing and distribution system could be greater. At the local level, for instance, cotton-ginning firms and rice-milling firms could face a 20 to 25 percent decline in the demand for their services. Firms and individuals that will face significant declines in demand for their services include those that retail or transport inputs; apply fertilizers, lime, pesticides, and other chemicals; service farm machinery and equipment; and provide custom farm services.

As a whole, warehouses and elevators that handle PIK commodities are generally not expected to experience a significant decline in volume of business during the 1983 crop year as a result of the PIK program. Since payment-in-kind commodities can not be entered into the regular or reserve loan programs, free stocks of commodities will be considerably larger than last year at harvest time. This will foster the handling and merchandizing of grain by warehouses and elevators. Also, additional business activity will be generated by the disbursement of PIK commodities to program participants. The CCC is relying heavily on industry warehouses and elevators to help with this phase of the PIK program, which is no small task.

PIK could affect possibly 2-3 percent of employment in closely related industries. Not all the workers affected will lose their jobs; some will face shorter work weeks or temporary layoffs, and some may face longer-term unemployment. As the $3 billion of added farm income generated by PIK works its way through the farm and nonfarm economy in late 1983 and through 1984, some additional jobs will be created to partially offset the effect of PIK. Already crop prices have improved significantly since announcing the PIK program and and the general outlook in the farm community is brighter.

On the other hand, some increase in demand for both truck and rail transportation is expected from larger than normal feed shipments into deficit areas. Corn and sorghum movements may be greatest into feed deficit regions (Appalachian, Mountain, and Northeast). The PIK program may also influence grain flows within major producing regions, resulting in an increase of short-haul truck transportation.

Thank you. I would be happy now to answer any PIK or other questions you might have.

American Farm Bureau Federation

STATEMENT OF GRACE ELLEN RICE, ASSISTANT DIRECTOR, NATIONAL AFFAIRS DIVISION

ACCOMPANIED BY RONALD HERR, ECONOMIST, ECONOMIC RESEARCH DIVISION

Senator Cochran. Our next witness, and the last on our agenda this morning, is Grace Ellen Rice, assistant director for national affairs of the American Farm Bureau Federation.

Welcome, Ms. Rice.

Ms. Rice. Thank you, Mr. Chairman.

Mr. Chairman, with me this morning is Ron Herr, an economist with our economic research division.

The Farm Bureau is the largest general farm organization in the country. Our members produce virtually every commodity grown in this country. Our policy is developed by producer members at the county, State, and national level, and it is augmented by recommendations by our commodity advisory committees. These form the basis for our specific recommendations this morning.

We offer a few general comments with regard to the overall Federal budget.

FREEZE AND FIX PROPOSAL

In August 1982, the AFBF board of directors adopted what we refer to as a freeze and fix program. This is a 3-year program that is a moratorium on all cost-of-living adjustments during that time. During those 3 years, Congress will have the opportunity to make structural reforms in the COLA adjustments. We believe this has been one of the reasons budget deficits have risen so severely, the overadjustments in the entitlement programs.

Consistent with the freeze and fix program is the position supporting freezes on 1984 and 1985 target prices for cotton, rice, wheat, and feed grains. We believe that this type of program can lead toward reduced Government outlays, the price support programs, hopefully using savings that are to be diverted to an export credit revolving fund in the

Commodity Credit Corporation (CCC). We believe this kind of program would also reduce Government incentives to overproduce and lead to a market-oriented approach for agriculture.

With regard to the specifics of the USDA budget, our concerns are virtually the same as those we expressed last year. We believe that the allocation of USDA funding is not where it should be. We believe that although the administration has called for a freeze in the 1984 USDA budget, it is not really a freeze once you look at it much closer. While the Farm Bureau supports a freeze at the 1983 aggregate, we have then the administration recommending the elimination or cuts in many Farm Bureau supported programs. There are three, in particular, that we would like to bring to your attention, and they are in the APHIS budget.

ANIMAL AND PLANT HEALTH INSPECTION SERVICES

We have seen an overall reduction in APHIS funding of about 16 percent below the 1983 level. Probably the largest cut comes in the brucellosis program, but there are others you see listed here—golden nematode, the pink bollworm program, and fire ants. The three specifics are pseudorabies, brucellosis, and the boll weevil program.

With regard to pseudorabies, we believe we are moving toward the eradication of pseudorabies, but that the implementation of pilot projects in five States—five different geographic parts of the country—would be helpful in learning how we can meet overall eradication. We are requesting $2.4 million be appropriated in the 1984 budget for this program.

Brucellosis is an important issue for many of our dairy and beef cattle ranchers. This is another area we are close to eradication, and we don't think it is wise now for the USDA to recommend such a severe cut in the program. Farm Bureau supports funding it at a level of $84 million, the 1983 level.

The subcommittee is aware of attempts earlier this spring to defer brucellosis funding. We appreciate the work of the subcommittee to prevent the occurrence of that. We hope the USDA doesn't recommend that kind of activity in the future. We think brucellosis is going to be eradicated. We have to have those funds, and they shouldn't be diverted to African swine fever or Medfly or any other program.

The third issue we would like to mention is boll weevil eradication. Back in 1978, Congress initiated a boll weevil eradication program—a trial program—that was successful, and in your conference report last year, Senate and House conferees indicated that once producers in States pass a referendum with at least 70 percent of the vote to take part in funding of the program, then Congress would look again toward expanding the program and that the USDA should file a supplemental budget request. In January of this year, both North Carolina and South Carolina approved a referendum which indicated that producers were willing to pay for part of it. USDA has not put forward a request, and we understand there has been some pressure there from the Office of Management and Budget. We would hope that the UDSA and OMB would reverse their positions, examine this more closely and put forth a request to Congress to fund an expanded boll weevil eradication program.

EXPORT CREDIT REVOLVING FUND

The last area I would like to mention briefly is the CCC export credit revolving fund. This is an item that we have come to Congress with every year, and so far it has not been funded. We realize the budget actions, but the CCC export credit revolving fund was authorized in the 1981 farm bill, and we believe it would be an appropriate way to stimulate our exports and, hopefully, bump up the prices for commodities that our farmers and ranchers receive here. The price tag we have requested for this fund is $1 to $2 billion. I recall last year that the subcommittee chairman asked if we would be satisfied with the lower amount. I responded yes, we would take the lower amount. We feel it is of great importance, so we leave it to your discretion.

This concludes our summary, and we would ask the statement be included in the hearing record. We would be happy to answer any questions you may have.

Senator COCHRAN. Thank you very much, Ms. Rice. Your entire statement will be made a part of the record.

[The statement follows:]

STATEMENT OF GRACE ELLEN RICE

Mr. Chairman, and members of the Subcommittee, Farm Bureau appreciates the opportunity to present testimony on the FY 1984 budget request for the Department of Agriculture.

The American Farm Bureau Federation is the nation's largest general farm organization with a membership of over three million families in 48 states and Puerto Rico. Farm Bureau members produce virtually every type of commodity grown on a commercial basis in the country. Farm Bureau policy is developed by the producer members at the county, state, and national levels of the organization. The recommendations of Farm Bureau's commodity advisory committees augment Farm Bureau policy and, in part, form the basis for our position on funding levels for specific USDA programs.

As in 1982, Farm Bureau's overriding concern is the state of the economy and the resulting effect upon agriculture. Like many businesses and individuals, farmers and ranchers find themselves in serious economic difficulty. Net farm income in real terms fell in 1982 to an historically low level.

Agriculture remains in a severe adjustment period due to excess supplies of most farm commodities and weakened demand due, in large measure, to very little economic growth in the overall economy and little or no gains in consumer disposable incomes due to ever higher taxes and inflation. Current levels of interest rates due, in substantial part, to the uncertainty and inaction by Congress to further reduce federal spending are adding to the cash flow difficulties of farmers and ranchers.

Farm Bureau's Freeze and Fix Proposal and the Agricultural Recovery Act of 1983

In August, 1982, the American Farm Bureau Federation Board of Directors approved the Freeze and Fix proposal to provide a three-year moratorium on cost-of-living adjustments (COLAs) in all federal programs, including farm price and income support programs. During the moratorium period, Congress would have the obligation to make structural reforms in the entitlement programs and particularly the COLAs. The Freeze and Fix proposal is designed to reduce federal spending.

Consistent with the Freeze and Fix proposal is the development by Farm Bureau of the Agricultural Recovery Act of 1983, omnibus farm legislation to correct the current surplus situation for wheat, feed grains, rice, cotton, and dairy. A centerpiece of the legislation is a freeze on 1984 and 1985 targets and loans at the 1983 crop year level. Dairy price supports would be set at not less than $11.32 CWT and adjusted annually, taking into account CCC net dairy purchases for the immediate preceding twelve months. The Agricultural Recovery Act of 1983 will reduce government incentives to overproduce, promote a market oriented approach to farming, and reduce CCC outlays for price support programs. It is this latter point that will be of major significance to the Subcommittee since price support outlays for FY 1983 are estimated at $18 billion.

FY 1984 USDA Budget Overview

In testimony last year to both the House and Senate Appropriations Subcommittees on Agriculture, Farm Bureau indicated support for reduced spending in the Department of Agriculture even though many of the cuts were in programs viewed as helpful to the interests of agriculture. We advised the Subcommittee that Farm Bureau could support a reduced level of spending, but we were concerned that, within the budget parameters, a serious distortion in spending priorities for production agriculture existed.

Our concerns about the FY 1984 agriculture budget are virtually identical to those expressed to the Subcommittee last year.

Principally, the allocation of proposed USDA funding is neither equitable, nor wise. The Admininstration's budget freeze for FY 1984 is not a freeze as far as agriculture is concerned. Indeed, the Administration's budget freeze produces significant cuts in or the elimination of many Farm Bureau supported programs rather than freezing all programs at the 1983 levels.

The following sections highlight Farm Bureau's concerns on the USDA budget for FY 1984.

Animal and Plant Health Inspection Service

Nowhere can the effect of the Administration's budget "freeze" be seen more than in the budget of the Animal and Plant Health Inspection Service. The $43 million cut places 1984 funding 16 percent below the 1983 level and includes severe cuts in program areas such as brucellosis (-$33 million), boll weevil (-$171,000), pink bollworm (-$893,000), golden nematode (-$107,000), imported fire ants (-$5,209,000), witchweed (-$3,623,000), and gypsy moth (-$3,675,000). While it may be possible for the states and the agricultural users to absorb the cost of a portion of these federal programs, we believe it is ill-advised for USDA to recommend these severe cuts or program elimination at this time.

1) Pseudorabies

With regard to the pseudorabies program, Farm Bureau urges the USDA to pursue the concept of eradicating pseudorabies (PR), a serious viral disease primarily affecting swine. We supported funding for PR pilot projects in the FY '83 APHIS budget to learn more about how to control and eradicate this disease but funds were not included. We urge that funds totaling $2.4 million be provided in the FY '84 APHIS budget to establish and implement pilot projects in the following five states: Illinois, Iowa, North Carolina, Pennsylvania, and Wisconsin. These states have expressed an interest in conducting pilot projects and have or are in the process of developing them. We believe it is important that projects be conducted in different geographic areas to determine how to control, eradicate and prevent the spread of this serious disease from one area of the country to another. Farm Bureau also is encouraging the establishment of state funded PR mini-pilot projects in low incidence states. We support funding in the APHIS budget to continue PR surveillance activities in all states.

2) Brucellosis Eradication

The reduction of brucellosis eradication funds is a good example of bad planning by the USDA. The United States is close to eradication of the disease. Farm Bureau believes that the $33 million reduction in brucellosis funds is unwise and supports funding at the 1983 level. In addition, we oppose the diversion of brucellosis funds appropriated by the Congress for FY 1983 to other disease or pest control programs. Specifically, we object to the diversion of $13.8 million to the African swine fever and medfly control programs as well as the deferral until the fourth quarter of $6.2 million for possible distribution among other programs. Since these funds were appropriated for brucellosis by the Congress, they should not be tampered with or diverted to other uses. A delay in distribution will reduce the effectiveness of the total program for FY 1983. The Subcommittee is well aware of this issue and we appreciate the actions taken to prevent such diversion or deferral.

Farm Bureau continues to support the implementation of a voluntary herd depopulation plan to speed eradication and reduce long-term program costs. On December 31, 1982, a total of only 199 herds were quarantined due to brucellosis in 37 states plus the Virgin Islands. Twelve of these states plus the Virgin Islands reported no herds under quarantine while 25 had from 1 to 25 herds quarantined. We believe a major objective for the remainder of 1983 should be to eliminate infection in these herds and to establish surveillance procedures to prevent reinfection. Depopulation should be used as a primary tool.

This approach also should be emphasized to eliminate small and/or chronically infected herds in high incidence states to help them move into a higher program classification status. Larger herds could then be handled under an accelerated effort which may need to include a concentrated test and slaughter procedure. We support the use of calfhood and adult vacination particularly in high incidence states to reduce the total infection.

Farm Bureau supports the flat rate indemnity system. The indemnity structure in effect in 1982, particularly for dairy cattle and registered animals, was placing a financial drain on the total program.

3) Boll Weevil Eradication

The Subcommittee is aware that APHIS funds for the boll weevil eradication program are reduced in FY 1984. Farm Bureau objects to the reduction. With regard to a related boll weevil funding issue, we believe that the USDA has not fulfilled its obligation to Congressional intent by failing to put forth a FY 1983 supplemental budget request for the boll weevil eradication program.

In 1978, a trial program was initiated by Congress to determine the feasibility of eradicating the boll weevil through a joint industry-government effort in which the cotton producer assumed a major share of the cost. The program was initiated in part of southern Virginia and eastern North Carolina. The boll weevil eradication program has been successful and has reduced the cost of production for cotton farmers through decreased pesticide use and increased yields. Because of the success of the trial program, it was the intention to expand the program into the rest of North Carolina and into South Carolina.

During consideration of the FY 1983 agriculture appropriations bill, the House appropriated $1,029,000 for the boll weevil eradication program. The Senate recommended an additional $1,817,000 to be used to expand the trial program. The expansion of the program was made contingent upon producers in those states passing a referendum to pay at least 70 percent of the cost of the program. During conference deliberations on the 1983 agriculture appropriations bill, conferees recommended a level of $1,029,000 for the boll weevil eradication program. The conference committee report contained the following language:

> "The Conferees will expect the Department to submit a supplemental budget request to fund the boll weevil eradication program when producers in those states pass referenda to pay at least 70 percent of the cost of the program."

In January, 1983, referenda were held in South Carolina and North Carolina. The referendum passed in South Carolina with 72 percent of producers voting in favor of it. In North Carolina 79 percent of cotton producers voted for the referendum, thereby indicating that they are willing to share in the cost of the boll weevil eradication program.

It is our understanding that because of pressure from the Office of Management and Budget, the USDA has not filed a supplemental budget request to provide funding to expand the eradication program. However, we urge the USDA and OMB to comply with the conference committee report language for FY 1983 agriculture appropriations by filing a supplemental budget request to expand the program. Funds should be included in the next supplemental appropriations bill to proceed through Congress.

Research and Extension

Formula funding in the research and education programs of the Cooperative State Research Service and the Extension Service is frozen at the 1983 level. This is consistent with Farm Bureau's proposal to freeze federal spending. We maintain our support for agricultural research and extension work, but do not consider a one-year freeze on funding to be unreasonable particularly since our members support legislation calling for a freeze on 1984 and 1985 targets and loans at the 1983 crop year level.

Agricultural Exports

In order to facilitate agricultural exports and to combat unfair trade practices such as the subsidized prices and interest rates of the European Community, Farm Bureau strongly supports CCC export financing programs. This support includes monies for the CCC revolving fund which was authorized by the Agriculture and Food Act of 1981. Increasing farm export credit is the quickest way to increase farm income, provide additional employment, and improve our balance of payments. We, therefore, ask that the Subcommittee provide an appropriation of one to two billion dollars to fund this revolving credit program. This expenditure is justifiable in light of the immediate benefit to the farm economy and the indirect benefit to future USDA budgets through improved farm prices and reduced deficiency payments and government storage costs.

Conclusion

The areas of new funding sought by Farm Bureau are the CCC export credit revolving fund and pseudorabies pilot projects. Money for these programs can be made available from overall reductions in other budget areas. We suggest that there are areas other than those directly affecting producers, such as rural community development and housing programs and departmental administration, that the Subcommittee may want to examine for possible budget reductions. For example, the Administration is requesting increases in administrative areas such as Office of the Secretary (+$427,000), Office of the Inspector General (+$1,581,000), and Office of the General Counsel (+$1,147,000). These increases in administrative expenditures are questionable particularly when programs such as animal and plant health and soil conservation are being reduced.

Farmers' and the nations needs can best be met within the constraints of reduced federal spending and a responsible USDA budget if the Department addresses itself to the concerns of farm families who are involved in the daily production and marketing of food and fiber. Agriculture will accept its share of budget restraint, but we believe that all segments of the budget should share equally in budget constraints.

We thank you for the opportunity to present testimony.

REVOLVING FUND

Senator COCHRAN. I appreciate very much your being here and discussing some of these problems with us. As you know, we did agree to the suggestion by Senator Eagleton to include $500 million, I think, in the revolving fund account, and the House wouldn't go along with it; we lost that in the conference. I don't know what the likelihood is of our being able to get that included in our final bill. A lot of farmers and producers I talk to are convinced this will help us be more competitive in international markets, and we certainly do need to explore every opportunity to sell more of our goods in international trade. It is a job-producing activity. I hear that for every $1 billion in sales of agricultural products abroad, 26,000 jobs are created here in the United States. This would do a great deal to alleviate the problems of unemployment we are facing now.

THE APHIS BUDGET

The APHIS budget, I agree, seems to be fairly anemic looking this year, and we are concerned that if we do allow such activities as the brucellosis eradication program to founder now, it is going to cost more later to catch up and get back where we are, than if we go ahead and try to be more aggressive in that effort. I don't know what the subcommittee is going to do about deciding on a funding level in that program, but we are aware of the importance of it. It is controversial, of course, as you know. There was a constituent in my office the other day, and he said when we are both in the nursing home, we will still be hearing arguments about brucellosis and what to do about it. I hope it is not true, but it may very well be with us for a long time if we are not more aggressive.

Your suggestion is that we include the same amount of money as we did last year. They still have about $64 million left to spend this year in that program, and we are hoping they move ahead and not try to divert money to other programs, as you observed earlier.

Research has to move forward in this area to make sure that our vaccination programs and all of the rest are up-to-date and that we are taking advantage of modern technology and not using some outdated, ineffective technology in the brucellosis program. I am concerned about that, too.

Ms. RICE. Yes; that brings up a good point about animal health research at APHIS, not just brucellosis, but all the other animal and plant diseases and pests we come across.

Senator COCHRAN. These are very important areas for us to consider, and we will consider these carefully. Your comments and the statement you filed with the committee will be a good beginning. Thank you very much for being with us.

Ms. RICE. Thank you, sir.

SUBCOMMITTEE RECESS

Senator COCHRAN. This concludes our hearing today. The subcommittee will recess until 9:20 a.m. tomorrow. We will meet again in this room to receive testimony from congressional and nondepartmental witnesses. Until that time, the committee stands in recess.

[Whereupon, at 12:05 p.m., Wednesday, April 20, 1983, the subcommittee was recessed, to reconvene Thursday, April 21 at 9:20 a.m.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1984

THURSDAY, APRIL 21, 1983

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 9:25 a.m., in room SD-138, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran and Abdnor.

NONDEPARTMENTAL WITNESSES

OPENING STATEMENT

Senator COCHRAN. The subcommittee will please come to order.

Today, we are continuing our hearings for congressional and nongovernmental witnesses on the President's budget requests for the activities of the Department of Agriculture and related agencies which come under the jurisdiction of this subcommittee.

The subcommittee welcomes all of you to the hearing and thanks you for being here. We look forward to having the benefit of your views on the fiscal year 1984 budget requests.

We have a full slate of witnesses today, and therefore, we hope that you will cooperate with the committee and limit your testimony. We would like for each group to limit themselves to 10 minutes. We would appreciate that very much. Your prepared statements will be incorporated in the record in full, and the summary that you present to the committee verbally will give us an opportunity to discuss some of the issues that may be raised by your testimony.

I must tell you that the subcommittee cannot receive any copyrighted material for publication, unless arrangements have been made in advance by the witness to obtain the permission of the copyright owner that those materials be included in the subcommittee hearing transcript. This notice is being given to protect copyright owners, as well as the subcommittee and witnesses.

The first person that we have listed on our witness agenda today is Harold O. Wilson, director of the Housing Assistance Council. Is Mr. Wilson here?

[No response.]

COUNCIL FOR RURAL HOUSING AND DEVELOPMENT

STATEMENT OF ARTHUR EDWARDS, CHAIRMAN, MANAGEMENT COMMITTEE

Senator COCHRAN. The next witness is Mr. Arthur Edwards, Chairman of the Management Committee of the Council for Rural Housing and Development.

Mr. Edwards, please come forward. We welcome you to the hearing and ask you to proceed in any manner you wish. We have this light device up here to mark time. The green light means you are in good shape. When the red one comes on, your 10 minutes have expired.

Mr. EDWARDS. Thank you, Mr. Chairman. I appreciate the opportunity to be here. My name is Arthur Edwards, and I am chairman of the Management Committee of the Council for Rural Housing Development. We are a group that is comprised of a little over 100 members from about 34 States. We are developers of section 515 rural housing program. My purpose here today is to testify in favor of an appropriation of $940 million for the section 515 program for fiscal year 1984, and also for an appropriation of $400 million for the rural rental assistance program.

Mr. Chairman, as you said, our testimony will be inserted in the record, so I am not going to include all of the statistics in my statement.

[The statement follows:]

STATEMENT OF ARTHUR EDWARDS

My name is Arthur Edwards. I am Chairman of the Board of Case/Edwards Enterprises, Inc., of Annapolis, Maryland and Chair of the Management Committee of the Council for Rural Housing and Development, on whose behalf I appear today.

As a matter of background, the Council is composed of over 100 member organizations from all sections of the country who are active developers under the Section 515 program. Although we have been in existence just a little over two years, we have been quite active in both legislative process and in working closely with Farmers Home to assure workable regulations and procedures.

I am here today to testify on behalf of an appropriation of $940 million for the Section 515 program for FY'84 and $400 million for rural rental assistance.

Rural Housing Needs

Although you may be generally familiar with rural housing needs, a few salient facts bring into sharp focus the housing needs of rural America.

Family income in non-metro areas, although growing, still lags significantly behind such income in metropolitan areas ($18,069 vs. $22,590). Although rural areas have only 26.7% of the nation's population, they have 38.4% of those in poverty.

In non-metro areas, 36% of renters who occupy adequate housing spend more than 30% of their income to do so. For very low income house renters, those below 50% of median, 78% of the renters occupying adequate housing have such affordability problems. Non-metro houses are twice as likely to have kitchen and heating defects, three times as likely to have plumbing defects, and ten times as likely to have inadequate sewage systems than homes located in metropolitan areas.

Although housing needs are greatest in rural America, the supply of credit to meet such needs is far less. A study found that in 1975 banks and savings and loan associations in large metropolitan areas had assets of $8,000 per capita -- more than twice the $3,400 per capital in rural and non-metro counties. In that same year, the savings and loans had deposits of $2,000 in capital in the larger metro counties, compared with only $70 per capita in totally rural, non-metro countries, and $1,000 per capita in non-metro counties.

It is this mismatch of high need and low resources to meet this need that impelled Congress in the Housing Act of 1949 to establish the Farmers Home Section 502 home ownership program, and Section 515 rental housing program. We who work actively on the Section 515 program are proud of that program's record in meeting the needs of rural America renters. Since its 1949 inception, over 225,000 units of housing have been built. Of all the federal programs, Section 515 targets its assistance to those who need it most. A 1979 FmHA survey showed that nearly 85% of the occupants of Section 515 projects had incomes under $9,000.

Section 515 is a cost efficient program. For Fiscal Year 1981, the cost of a Section 515 assisted unit was $29,314 compared with over $40,000 for a unit assisted under the Section 8 program. The delinquency rate of the Section 515 program is roughly 5%, and defaults are virtually nonexistent -- a record unmatched by any other housing program.

In addition, Section 515 results in good community development. The concentration of people in rental units can mean less federal, state and local tax dollars spent on streets and road construction and maintenance, sewer and water system construction, as well as public school transportation. Also, money spent on Section 515 creates a community asset that lasts for many years, as opposed to one-shot assistance under most social service programs. Although there may be a turnover of tenants in a rental project, the apartment itself continues as a resource for low income tenants for at least twenty years.

Specific Recommendations

With this background in mind, we wish to strongly recommend the continuation of an adequate level of funding for the Section 515 program. At a minimum, we recommend your appropriation of $940 million, the same level as last year. Of course, we would like to see some increase to meet the ravages of inflation; however, we are also fully aware of the budgetary stringencies under which we are operating.

In addition, we urge an appropriation of $400,000,000 for rental assistance contracts so that Section 515 units can be rented to the very lowest income families. We realize that this figure exceeds the $250,000,000 authorized by the Banking, Housing and Urban Affairs Committee, but this is an especially pressing need.

In light of your vigorous support for Farmers Home housing programs, Mr. Chairman, we have little doubt you will support funding levels which will do the most to meet the needs of low-income rural families in light of current budget realities.

Although not technically within your jurisdiction, we also are sure you will remind many of your colleagues of some of the potential problems that Farmers Home faces in assuring the continuance of the high quality of its housing programs. We belive that the authorizing legislation recently reported out of the Banking, Housing and Urban Affairs Committee has many unwise provisions, but we will limit ourselves here to fiscal provisions.

The housing authorization bill currently under consideration by the Senate radically changes the tenant income criteria for rental housing. These changes seriously jeopardize the ability of FmHA to deliver rental housing with the Section 515 funds this Subcommittee would allocate. Under those provisions, no one whose income is above 80 percent of area median could move into a Section 515 unit, in contrast to present law which permits rentals to "moderate" income families. The intent to target FmHA housing to the lowest income persons is admirable, but there are two serious flaws to this proposal.

First, we have a wise government housing policy encouraging economic integration. The authorizing bill would exclude from FmHA housing a large segment of moderate income families currently residing in Section 515 projects, leading to an unfortunate economic stratification.

Second, this provision is not only bad social policy, it is bad fiscal policy. The absence of tenants able to pay relatively higher rents will force the government to choose between providing additional subsidies, or abandoning the low-income populations of communities where 515 becomes financially unworkable because of this provision. The Section 515 program has traditionally been successful, on a personal level and on a financial level, because of the economic mix allowed. The history of the old HUD public housing programs tells us what happens if such a mix is elimiated.

We are also very concerned by proposals to bring the Rural Housing Insurance Fund, the "bank" for FmHA, into the unified budget. No one disputes that the Congress is entitled to an accurate accounting of FmHA's spending. However, it has become more and more apparent that the current federal budget system does not accurately distinguish between operating costs and capital expenditures such as FmHA loans. We applaud the many members of Congress who are devoting serious efforts to rectifying this problem.

Given these efforts, it would be a needless exercise to ask FmHA to go to the time and expense of changing its budgeting procedures now, and in a very few years ask them to duplicate those efforts to move to the system which Congress will inevitably find more reflective. If there is specific information which Congress requires in the interim, we are sure, Mr. Chairman, that your experience is the same as ours; FmHA is more than willing to respond to requests for such information.

We appreciate this Subcommittee's efforts last year to provide additional field staff for Farmers Home. We hope that effort will not be partly negated by unnecessary budget complications requiring extra time of FmHA staff.

These proposed changes in the authorizing bill are opposed by all major groups primarily concerned with rural housing, such as those that represent private developers working in rural areas, non profit and public providers of rural housing, and most significantly, tenant groups and consumer organizations. Unanimity among these diverse entities is rarely obtained, again highlighting the unsound nature of these proposals.

Certainly, Section 515, like any other program, can be improved. We are very impressed with some of the suggestions that have been forwarded by the Rural Housing Coalition, of which we are a proud member. They include the use of Section 502 units as Section 515 rental units, the conversion of large, single family residences into rental units, the use of detached units for cooperative housing, and the rehabilitation of existing housing for use as Section 515 rental units. Our only caveat concerning rehabilitation is that there is very little stock available in rural areas, thus making new construction a necessity in most eligible areas.

Mr. Chairman, again let us congratulate and commend you for the leadership that you have given in the crucial areas of rural housing. Thank you for this concern and the opportunity to share our thoughts with you today.

RURAL HOUSING NEEDS

Mr. EDWARDS. The country still needs the rural rental housing program. Our people in the rural areas still lag behind in terms of incomes. We are still living in substandard housing; we are still paying more for rent as a percentage of income; and we still don't have any savings and loans funds in rural areas. These are the conditions that induced Congress to create Farmers Home, and those conditions are still out there. We still need a source for borrowing for single-family and rental housing programs.

The Farmers Home 515 program is a very efficient, economic and locally oriented program, and we urge that the $940 million be appropriated for 1984.

HOUSING AUTHORIZATION BILL

With that background, Mr. Chairman, we would like to go on and discuss briefly the authorization bill, which we know does not come under your jurisdiction. There are, however, items in it that we would like to bring to your attention.

A key item is the proposal to reduce the number of people who can participate in Farmers Home to only low-income families. The Farmers Home Administration is a low- to moderate-income family program. We urge that this not be changed. We urge that the low-moderate provisions of the Farmers Home Administration program be continued.

We also urge that the Farmers Home Administration stay as it is in terms of its budget characterization. We don't like the idea of being brought on budget. The loans that are made through Farmers Home 515 projects are assets for the Government. We reject the notion that these are expenditures. These are assets that the Federal Government would hold. They are supported by five valuable properties held by strong developers.

We appreciate the committee's efforts last year to support the Farmers Home staff.

There are changes that could be considered by Farmers Home. The Rural Housing Coalition is proposing some of these changes. They include rehabilitation, the use of detached units for cooperative housing, and fully utilizing the existing housing stock on the ground.

Mr. Chairman, thank you for permitting me to testify today. I will be happy to answer any questions.

Senator COCHRAN. We appreciate your being here, Mr. Edwards. I appreciate the observation you made, particularly with respect to your opposition to the direct appropriation approach as compared with the current off-budget system. I tend to agree with your outlook on that. What troubles me so much is we are seeing most of the reductions in spending for Farmers Home Administration in the housing area. There is a $3.1 billion reduction in Farmers Home funding this year requested by the administration, and most of it is in the housing area. I think there are still a lot of unmet needs out there in the rural parts of the country. I know from personal experience in my State that these programs have been very helpful to many citizens—low and moderate income as well—who would be unable to obtain housing were it not for these programs. So, we are going to be very careful in our review of this request. Your being here and your description of the problems you see with the big cuts in this area, I think, illustrates our concern as well.

BLOCK GRANT PROPOSAL

What is your reaction to the rural housing block grant proposal? Is there any evidence that States wouldn't be able to match the program, or why would you oppose that?

Mr. EDWARDS. Well, sir, we operate in Maryland and Delaware, and the State housing agencies in those States are primarily oriented toward development in the larger metropolitan areas. They don't have a staff infrastructure to relate to rural areas. The experience that the Farmers Home Administration has developed over the years has enabled them to accurately process, evaluate, and underwrite loans for rural rental housing. Their experience is going to be impossible to duplicate in a very short period of time. I think we spent a lot of money in the Administration in staffing that program up.

Senator COCHRAN. Thank you very much for you help. We appreciate your being here.

HOUSING ASSISTANCE COUNCIL

STATEMENT OF HAROLD O. WILSON, EXECUTIVE DIRECTOR

Senator COCHRAN. I am advised Mr. Harold Wilson, Director of the Housing Assistance Council, is here now.

Mr. Wilson, we are asking witnesses to limit their verbal testimony to 10 minutes. If you can do that and summarize from the written statement, we would appreciate it very much.

Mr. WILSON. I would be glad to do that.

I apologize for being late. Our taxicab had a little trouble. Actually, it ran into another vehicle on its way over here.

Senator COCHRAN. Great way to start the day.

Mr. WILSON. Wonderful way to start the day.

I am Harold O. Wilson, executive director of the Housing Assistance Council, which is a national, nonprofit housing assistance organization. I would like to thank you, particularly, Mr. Chairman, for the opportunity to appear before your committee this morning to discuss appropriations for the Farmers Home Administration.

SUBSTANDARD HOUSING

Even though there have been significant gains in the elimination of substandard housing in the decade of the seventies, the problem is far from solved. There were still almost 1.7 million families in 1981, who lived in poor housing conditions. I believe credit for much of the gain over the past 10 years can be attributed to the excellent programs of the Farmers Home. For example, during the first 32 years of its housing mission, the agency made loans and grants of over $35 billion, and in 1982 it made over 83,000 section 502 and 504 rural housing loans to individuals and financed over 14,280 section 515 rural rental housing units.

RATE OF FMHA'S EXPENDITURE OF FUNDS

Unfortunately, the last few years have witnessed a faltering of this excellent record. Due to the effects of inflation and reduced appropriations, the agency has produced fewer and fewer units since 1979. In addition to these problems, we are now faced with a situation in which the Farmers Home Administration is reluctant to spend the funds that the Congress has appropriated for them.

In 1982, for example, with less than 25 percent of the fiscal year remaining, the agency had obligated less than 50 percent of its rural housing moneys. They wound up the year with an orgy of spending, with hastily approved projects, and did in fact manage to get most of their money out. In spite of frustrations and concerns expressed last year, however, the agency has embarked on the same course this fiscal year. In fact, the record is so poor that with more than half the year gone, expenditure of funds for only one program has even approached the 33-percent mark. In Mississippi and Missouri, for example—two randomly selected States—only 9.6 percent and 11.7 percent of the section 515 funds have been utilized at the mid-year point.

As a result of this record, we would like to suggest some language that is included in my written comments be enacted into law this year in order to prompt the Farmers Home Administration to be more diligent in making use of funds that the Congress appropriates for them.

RURAL RENTAL ASSISTANCE

In addition to our suggestions on encouraging the Farmers Home Administration to use all its funds, we would also like to encourage the committee to provide an adequate level of rental assistance money to be used in conjunction with the 515 program. We would recommend the National Rural Housing Coalition's suggested level of $450 million, but at the very least, we would like to recommend that the fiscal year 1982 level of $398 million be appropriated. This amount would provide for over 37,000 units.

As you are well aware, Mr. Chairman, the rental assistance program is one of the few programs that the Farmers Home Administration has that can reach deep enough to serve really low-income families in our remote rural areas.

SWITCH OF FUNDS BETWEEN FMHA PROGRAM CATEGORIES

I also want to bring to your attention the recent switch of funds between different program categories in the Farmers Home Administration. While we are sympathetic to the need for the flexible use of funds during certain periods and are certainly sympathetic to the needs of the farmers and their operating cost situations, we are concerned about the recent transfer of funds from the waste disposal loan and grant program to the farm operating loan fund. It is our sense that the agency was aware that farmer operating loans were being exhausted and, for whatever reasons, failed to notify the Congress of the lack of these funds. In fact, as late as April 7, 1983, this committee was informed there was no need for additional funds in the farm operating account. In addition, the transfer was made in disregard of congressional intent to provide jobs with water and wastewater funds that the Congress made available in the recently enacted jobs bill. It was done at a time in which the agency has wastewater loan applications on hand for over $1 billion and grant applications on hand for over $445 million.

Again—in our randomly selected States of Mississippi and Missouri—in Mississippi, the numbers are $32 million in loan applications and $15 million in grant applications on hand; in Missouri, there are $50 million in loan applications and $21 million in grant applications for water and wastewater assistance currently on hand.

STAFFING PROBLEMS

Let me move now, Mr. Chairman, to the staffing problem faced by Farmers Home Administration. We know that the staffing problems of the agency are legendary and go back many, many years. This year, once again, they are having an impact on application processing, as well as creating very long waiting lists and extreme processing delays. Because of the jobs bill, there will be an additional 500 employees retained by the Farmers Home Administration for the rest of fiscal year 1983. We would like to suggest that the committee appropriate an additional $13 million for fiscal year 1984 in order to employ those additional staff on a permanent basis.

Processing delays have been caused by the overemphasis the agency has placed on loan servicing. Loan servicing, we feel, is a very necessary and important part of operating the Farmers Home Administration program; however, they seem to have been so extremely diligent over the last few years that they have caused thousands of farm families facing poor times to give up their homes. It also increased the Farmers Home inventory significantly, in fact, from over 6,000 units in 1980 to over 13,000 units this year, 1983.

I don't have recent numbers, but we took a look at this issue in 1981, and the percent of principal that the Farmers Home Administration had written off in its 502 and 504 program over the life of those programs was only fourteen-hundreths of 1 percent in 1981, and only four-hundreths of 1 percent was written off in the 515 program. The agency is doing very well, we feel, in utilizing its funds, and its delinquency is not a significant problem.

BUDGET PROPOSALS

In conclusion, Mr. Chairman, I understand that placing Farmers Home Administration programs on budget is currently under consideration. Our concern is that proposal currently being reviewed would budget at year one the cost of Farmers Home Administration subsidy over the full 33-year term of the mortgage. We feel that this action would indicate huge program costs in the budget that would be both misleading and inaccurate. We would like to suggest that the Congress direct the agency to develop a budget report that relates to its experience with making housing loans by including prepayments, subsidy, attrition and subsidy, and the amount of recapture, and that then the next costs that could be calculated as a result of those considerations could then be reported and in the unified budget.

Thank you again, Mr. Chairman, for the opportunity to present our views, and thank you for your concern and for your support for the rural housing programs and for the Farmers Home Administration over lo these many years. It has certainly been a pleasure to work with you, and we look forward to continuing to work with you.

Senator COCHRAN. Thank you, Mr. Wilson. I appreciate your kind comments and your excellent statement, too. We, of course, will include the full statement in the record. We appreciate having all this information and the statistics you have made available to the committee. I know we will find this to be useful when we review the budget request for Farmers Home and some of the other activities you mentioned.

FARM OPERATING LOANS

Of course, we were greatly disturbed when the Farmers Home came before this committee and we found out through our questioning of them that they were running out of money in the operating loan account. We have been working with them to try to come up with some resolution of that problem. Although I am not excited about the reallocation or reprograming of funds from the water and wastewater and other programs that they diverted money from, we will take that into consideration when we review this budget request. We hope that it won't jeopardize any projects that are under consideration for funding, because those are important programs.

AUTHORIZING LEGISLATION

I mentioned when the previous witness, Mr. Edwards, was here that it seems that the administration is putting most of the emphasis on the Farmers Home housing programs in its efforts to reduce spending for this next fiscal year. Do you share the previous witness' concerns about the authorizing legislation that has been reported out of the Banking Committee and that is pending before the Senate, that has eliminated, in effect, some of the moderate-income housing programs and put most of the emphasis on low-income housing programs?

Mr. WILSON. I didn't get a chance to hear all of the previous witness' comments, Mr. Chairman, but I would say that we are supportive of a moderate-income housing program. We feel that the majority of the subsidy dollars certainly should be targeted to low-income families and to those areas of the greatest need. However, we do feel there is a responsibility for some kind of moderate response by the administration to the housing conditions we face. The guaranteed loan program with some small interest write-down might be an adequate way to begin to approach that. In addition to that, we would support some dollars in moderate income by the 502 program.

Senator COCHRAN. Thank you very much. We appreciate your contribution to the hearing.

Mr. WILSON. Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF HAROLD O. WILSON

Mr. Chairman, I am Harold O. Wilson, Executive Director of the Housing Assistance Council (HAC), a national nonprofit housing organization. The Housing Assistance Council assists in developing housing for low income families by providing technical assistance and seed money loans to rural housing and development organizations. The Council is now in its second decade of operation.

I wish I could appear before you today and report that substandard housing has been eliminated and that there is no longer a need for rural housing money. Unfortunately I cannot. Contrary to the view of some that substandard housing is no longer a problem, our analyses show that it continues to exist disproportionately in the rural areas of our country. Even though since 1970 there has been a decline in the number of rural substandard housing units, particularly in occupied units which lacked plumbing, there were still almost 1.7 million units in 1981 that either lacked plumbing or were overcrowded.

Credit for much of the progress that has occured belongs to the rural housing programs of the FmHA. For example, during the first 32 years of its housing mission, the Agency made loans or grants of over $35 billion. In 1982, it made over 83,000 Section 502 and 504 rural housing loans to individuals and financed over 14,280 Section 515 rural rental housing units. Without the continued presence of FmHA in rural communities, thousands of families now residing in good housing would still be occupying substandard conditions. Complicating further progress, is the fact that the majority of such deficient units are occupied by very low income residents lacking the financial ability to attain decent, safe and sanitary housing without federal assistance.

The Housing Assistance Council believes that the Farmers Home Administration possesses the ability to address the housing needs of very low income rural families. Over the years, Congress has provided the Agency with the authorities and programs with which to do this. At the present time, while a greater level of funding for FmHA assisted housing programs is needed, we are confronted by the reluctance of those administering the programs to even spend what Congress has provided.

In addition to this issue, we wish to concentrate our testimony on a number of key items of equal importance to low income rural families. Specifically, we will focus on the following topics:

1. The need for Rental Assistance payments;
2. Rate of FmHA's expenditure of funds;
3. Recent switch of FmHA funds between different program categories;
4. Delay in processing applications;
5. Budget proposals;
6. Funding requests for FY 1984.

The Need for Rental Assistance Payments

The ability of FmHA to serve the most needy rural citizens is primarily through use of the Section 515 Rural Rental Housing Program, in conjunction with rental subsidies. While the percentage of income that low income residents can afford for housing varies, it is indisputable that few can attain any level of affordability absent deep subsidy assistance. Rural households with incomes below $10,000 simply cannot afford to rent or own without financial assistance.

The dimensions of the problem are illustrated by the following statistics. In 1980, the poverty level was defined as annual income below $8,140. (The 1982 poverty level for a nonfarm family of four was $9,300.) In non metropolitan areas, almost 4.6 million households were below this level. Further, 61% of the non metropolitan rural households in units lacking plumbing had incomes of less than $7,000 a year. This demonstrates that if our nation is to assist those households deep subsidy assistance must be available.

FmHA's Section 515 Rural Rental Housing Program along with Section 521 Rental Assistance is a mechanism that can serve these families. Without Rental Assistance, the 515 program will only house tenants at the upper portion of the low income scale. If the Congressional mandate for targeting to the lowest income families is to be met, an adequate level of rental assistance funds must be made available to the Agency. I should note that the Senate Banking, Housing and Urban Affairs Committee has reported a bill which requires even more targeting to very low income households, and thus will require more rental assistance then is currently proposed. HAC supports the National Rural Housing Coalition's Rental Assistance (R.A.) funding proposal, but at the very least recommends that the FY 1982 level of $398 million be appropriated. This will provide approximately 37,779 five year R.A. contracts for renewal, existing and new projects. In the NRHC proposal, more than 50% of all units financed through the 515 program in FY 1984 would include rental assistance to the tenants. Exhibit D, "Targeting FmHA Programs Through Rural Rental Assistance" provides a brief and statistical analysis of the need for this subsidy program.

Rate of FmHA's Expenditure of Funds

Over the past two years, Congress has authorized programs, appropriated funds, and directed the Agency to administer the country's rural housing effort. However, FmHA has recently refused to use available funds in a consistant manner. Instead, the Agency has proceeded to spend an extremely low percentage of funds during most of the year, only to award the bulk of the money during a two-three month period. Rather than developing a steady selection and processing mechanism, this type of spending creates the possibility, if not the likelihood, of hastily approved, and possibly ill-conceived projects.

In 1982, for example, with less than 25% of the fiscal year remaining, the Agency had obligated less than 50% of its rural housing monies. Low income families in substandard housing units were denied the assistance Congress provided soley because the Agency refused to spend its funds. When the funds were ultimately provided, it was done in such a way, and in such a short period of time, as to possibly preclude proper consideration and selection of projects.

Mr. Chairman, despite last year's lessons, frustrations, and concerns expressed on all quarters, the Agency has now embarked on repeating the same experience. The following chart indicates the rate at which expenditures are currently being made:

FARMERS HOME ADMINISTRATION
RURAL HOUSING OBLIGATIONS FY 1983
USE THROUGH MARCH 31, 1983
(Dollars in Thousands)

PROGRAM	APPROPRIATION	50% OF APPROPRIATION(a)	OBLIGATED 3/31/83	% OBLIGATED
502 Subsidized	$2,300,000	$1,150,000	$800,399	34.8%
502 Unsubsidized	-0-	-0-	26,399(b)	N/A
504 Loans	24,000	12,000	2,402	10.0%
504 Grant	12,500	6,250	3,743	29.9%
514 FLH Loans	19,000	9,500	1,030	5.4%
516 FLH Grant	12,500(c)	6,250	83	.7%

PROGRAM	APPROPRIATION	50% OF APPROPRIATION(a)	OBLIGATED 3/31/83	% OBLIGATED
515 RRH	940,000	470,000	48,788	5.2%
523 T.A.	12,500	6,250	1,664	13.3%
523 Site	2,000(d)	1,000	-0-	-0-
524 Site	2,000	1,000	-0-	-0-
TOTALS:	$3,324,500	$1,662,250	$884,502	26.6%
RENTAL ASSISTANCE	$ 123,745(e)	$ 61,873	$ 9,334(f)	7.5%
Compensation Const. Defects	$ 2,000	$ 1,000	$ 118	5.9%

(a) 50% = 1/2 of the appropriation

(b) No appropriation, but funds were obligated under continuing resolution.

(c) No appropriation. $12,500 authorized from deferred and carryover funds.

(d) No appropriation. $2,000 is estimate available in revolving fund.

(e) $73,745 for 7,000 renewals and $50,000 for 4,750 units in new projects.

(f) 886 units. 870 of 7,000 renewals. 16 of 4,750 new units.

The record is so poor that with more than half the fiscal year gone, expenditure of funds for only one program has even approached the 1/3 mark and the Section 515 program and Section 521 rental assistance program, available to serve the lowest income families, are only at the 5.2% and 7.5% levels, respectively.

Mr. Chairman, this policy of non-expenditure of funds is unconscionable and discriminatory against the poorest and most needy segments of our society. I cannot imagine this Administration tolerating such a policy if it were employed, for example, by a Department such as Defense. It should certainly not be permitted to continue here. We therefore would like to make the following recommendations, which we urge this Subcommittee to adopt into law:

1. The Secretary shall provide to the Chairmen of the Appropriations and appropriate Authorizations Committees, within ten business

days of the close of each fiscal quarter, an analysis of the use of funds for each FmHA program category within that quarter.

2. If the level of spending for any program within any such quarter should fall below 75% of the amount of funds available, the report submitted by the Secretary shall contain a justification.
3. Only extreme circumstances shall constitute just reasons for such deviations in expenditures.

Recent Switch of FmHA Funds between Different Program Categories

The Housing Assistance Council is sympathetic to the need for flexible use of funds among the several FmHA program areas during certain periods of time. Moreover, we are acutely aware of the plight of the farm sector of the rural economy. However we are extremely concerned as a result of recent actions taken by FmHA.

We understand that to deal with the premature, though not unexpected, exhaustion of farm operating funds, that the Agency transfered funds from the water and waste disposal loan and grant funds to the farm operating loan fund. Notwithstanding our sympathy with the farm sector, we find this action disturbing for the following reasons:

i) The Agency, aware that farm operating funds were becoming exhausted, intentionally failed to provide Congress with timely notice to address the situation. As late as April 7, 1983, the Undersecretary of Agriculture initially advised this Appropriation Subcommittee that the Agency had sufficient farm operating funds.

ii) The transfered funds had been provided to the Agency by the recently enacted jobs bill (P.L. 98-8). That Act, to combat unemployment, specifically appropriated water and waste disposal loans and grants to stimulate jobs and assist the development of rural communities. The transfer blatently ignored Congress' intent in providing the funds.

iii) The need for water and waste disposal loans and grants is extremely large. As of 3/30/83, there were 1,575 preapplications and applications on file for loans at FmHA, seeking a total of $1,090,047,654. For grants, as of that same date, 797 preapplications and applications were on file for a total of $455,060,863. In two randomly selected states, the current backlog is as follows:
In Mississippi, preapplications and applications on file are 117 for $32,433,850 for loans and 64 for $15,163,300 for grants.
In Missouri, preapplications and applications on file are 78 for $50,233,880 for loans and 50 for $21,425,552.

What has taken place sets a disturbing precedent. It indicates a second class status accorded to the development and health needs of our nation's rural communities, and it makes a mockery of the Department's Rural Policy statement recently submitted to Congress by eliminating additional funds for rural development.

Delay in Processing Applications

As you know, FmHA has historically been understaffed and overworked. Over the past decade, the burgeoning of the Agency's programs and loan portfolio have been drastically disproportionate to the increase in staff. As a result, applicants for FmHA assistance often must wait long and frustrating periods of time before they receive assistance. While the Agency continues to possess a very good delivery system, the demand of maintaining and servicing this portfolio may threaten FmHA's good record.

During the last few months, the Housing Assistance Council has received numerous calls from non profit organizations and rural builders across the country citing long delays in processing, which hamper their ability to successfully package applications. For example, the California Rural Builders Council expressed frustration about the processing delays. HAC has also received similar calls from builders in Ohio, Massachusetts, New York and other states. The FmHA offices are under severe pressure to spend much of their time on account servicing, and are severly understaffed. The recently enacted jobs bill (P.L. 98-8) provided $6.5 million to FmHA to hire an additional 500 employees for the remainder of FY'83. We urge the Congress to carefully monitor use of these funds and to require that the additional persons be used to staff FmHA field offices. We further recommend that, at a minimum, the FmHA salary and expense account be increased by $13 million in FY'84 to employ the additional staff permanently.

FmHA's overemphasis on servicing has also exacerbated this situation. This zealous degree of attention, requiring increasing amounts of FmHA's time and energy, has harmed the ongoing development of authorized loan and grant programs. Ironically, it has also virtually doubled the inventory of housing currently held by FmHA. On December 31, 1980, FmHA had 6870 Section 502 units in inventory. This figure increased to 13,376 as of February 28, 1983. Their delinquency numbers have been decreased, but at the cost of adding to the overall housing problem and the agony of unemployed rural families. Low income families have systematically been forced to relinquish their ownership interest in FmHA financed housing, and in some instances may have moved into substandard units. For example, in 1982 there were 3,610 foreclosures and 11,030 voluntary conveyances, for a total of 14,640 liquidations.

Budget Proposals

The Housing Assistance Council is extremely concerned over attempts to place the FmHA housing programs "on budget." Adoption of such a policy in its proposed format would artifically inflate the cost of FmHA rural housing programs greatly without producing one additional unit.

Any change in the treatment of programs financed through the Federal Financing Bank (FFB) should follow the most careful study and analysis. Such basic changes in financing mechanisms should be accomplished in a uniform manner, and not by a piecemeal approach. Altering the manner in which rural housing programs alone are financed would once again single out rural programs for discriminatory treatment.

Proposed changes would budget at year one the cost of FmHA housing subsidy over the full 33 year term of the mortgage. Such a calculation is unrealistic, bearing no relation to the actual cost of the loan to the government. The average FmHA homebuyer with interest subsidy does not receive such subsidy over the full term. Some homebuyers sell their homes, others experience income increases, graduate out of the program, move, or die. Rather than prematurely tampering with the manner in which FmHA is funded, Congress should direct the Agency to develop a budget report which relates to its experience with making housing loans. This report should specifically include prepayments, subsidy, attrition in subsidy, and the amount recaptured. Estimated net costs over the life of loans made could then be reported in the Unified Budget.

Funding Levels for FY'84

The following chart represents the National Rural Housing Coalition's recommendations, which HAC supports, for FY'84 FmHA funding levels:

Sec. 513(a)		
Sec. 502	Subsidized homeownership loans	$2,500,000,000
Sec. 502	Unsubdidized homeownership loans	$130,000,000
Sec. 514	Farm labor housing loans	$25,000,000
Sec. 515	Subsidized rural rental and cooperative housing loans	$1,250,000,000
Sec. 521	Rental Assistance	$450,000,000
Sec. 524	Rural housing site loans	$2,000,000
TOTAL		$4,362,000,000

Sec. 513(b)		
Sec. 504	Low income repair loans	$25,000,000
Sec. 504	Low income repair grants	$25,000,000
Sec. 509(c)	Compensation for construction defects	$2,000,000
Sec. 516	Farm labor housing grants	$25,000,000
Sec. 525	Technical and supervisory assistance grants	$5,000,000
Sec. 525	Farm labor housing technical assistance grants	$2,500,000
Sec. 532(e)	Rural housing preservation grant program	$250,000,000
TOTAL		$334,500,000

Sec. 523

Sec. 523	Self-help technical assistance grants	$15,000,000
Sec. 523	Self-help revolving loan fund	$3,000,000
TOTAL		$18,000,000
TOTAL		$4,709,500,000

Water-Sewer	
Loans	$500,000,000
Grants	$300,000,000

Conclusion

As can be seen from our testimony, much remains to be done to improve the housing conditions for our nations rural people. We particularly appreciate your interest and role in this regard during the last two years. In the past, FmHA has accomplished a great deal in improving rural housing, and we believe that through your continuing interest the Agency can, and will, do more in the future.

Mr. Chairman, I appreciate this opportunity to appear before this Subcommittee to express some of our concerns. I have attached to our testimony a recent report issued by HAC analyzing the Administrations' proposed budget for 1984 (Exhibit A). I would be happy to answer any questions you may have. Thank you.

EXHIBIT A.

THE ZERO OPTION: ANALYSIS OF THE ADMINISTRATION'S 1984 BUDGET

Introduction

To prepare this analysis of the Administration's budget request for fiscal 1984, the Housing Assistance council examined the key program and policy proposals affecting rural America, which included:

- Farmers Home Administration (FmHA) housing and rural development programs;
- Department of Housing and Urban Development (HUD) assisted housing and community development programs, including an Administration initiative for Indian housing;
- Department of Health and Human Services (HHS) Community Services Block Grant (CSBG) and Secretary's discretionary fund programs; and
- Tax expenditures--or tax subsidies--which are made possible by the housing-related provisions of the Internal Revenue Code.

The Administration's budget reflects a continued effort to withdraw the federal government from many of its housing and community development roles. In fact, if enacted, the 1984 budget would virtually eliminate federal program resources for rural low-income housing.

HUD's assistance for new rental units would be restricted to a small allotment for the elderly. Food stamps would be included as income in determining rents and program eligibility. FmHA's housing programs would be virtually replaced by a block grant amounting to a faction of existing program levels. HUD's Community Development Block Grants would be folded into general revenue-sharing over the next five years. And the HHS Office of Community Services, which administers the CSBG and the Secretary's discretionary funding for nonprofits, would close out its programs after fiscal 1983.

With these mainstays pulled from the federal agency complex, the only federal resources remaining for rural housing in 1984 would be: $4.4 million in grants for farm labor housing; water and waste disposal and community facility programs (at decreased funding levels); funds to service the existing FmHA portfolio; and whatever share rural housing sponsors can extract from HUD's 10,000 rental units for the elderly, from housing vouchers, and from various block grants which are destined for eventual elimination.

The Housing Assistance Council (HAC) is an eleven-year-old nonprofit corporation which supports the development of rural low-income housing nationwide.

HAC provides technical housing services, seed money loans from a revolving fund, housing program and policy assistance, research and demonstration projects, and training and information services.

FmHA 1984 RURAL HOUSING BUDGET

With the exception of the farm labor grant program, the rural housing programs of FmHA are virtually eliminated in the proposed budget, and would be replaced by an $850 million block grant to the states, whose outlays, estimated by the Administration to be only $280.5 million in 1984, would amount to a mere 8% of the FmHA program level of 1983. The budget for loans would be cut 90%, from $3.4 billion in 1983 to $300 million in 1984, almost all of which would be used for servicing existing FmHA loans. Only 3,038 additional units would be assisted by FmHA. No rental assistance would be available for new units. No funding would be provided for:

- The self-help housing land development fund (which would be abolished as an authorized program)
- Sec. 509(c) compensation for construction defects
- Sec. 504 very low-income repair grants
- Sec. 502 unsubsidized rural housing loans
- Sec. 523 self-help technical assistance grants
- Sec. 524 rural housing site loans

In addition, the Administration proposes the deletion of existing appropriations language under the FmHA "salaries and expenses" heading which encourages forebearance of interest and principal payments and of foreclosure. The Administration will propose legislation to (1) increase tenant shelter payments from 25 to 30% of income, and (2) change the accounting for its Certificate of Beneficial Ownership borrowing, so that amounts borrowed from the Treasury will be listed as assets and thus make FmHA's budget appear larger.

The most accurate analysis of the Administration's intent is reflected in its published budget message. First, from the USDA 1984 Budget Summary:

> "Overall reductions in loan programs of the agency in FY 1984 reflect the intent of the Administration to limit the growth of federal outlays and reduce dependence on the Federal Government as a supplier of credit. The lower program levels will also allow FmHA to improve its loan servicing capabilities and return to its primary role of providing supervised credit to farmers and other rural people."

This statement is similar to the theme of last year's FmHA budget proposed by the Administration and rejected by Congress. Its assumption is that housing responsibility should be returned to the private sector, and that government's involvement in the credit markets should be drastically reduced. While budget details do address the reduction portion of that statement, evidence of "providing supervised credit to other rural people" is somewhat difficult to locate.

Again, from the Budget Appendix on the Rural Housing Insurance Fund:

> "The focus of the housing assistance programs will be directed toward assisting low-income individuals and families without other alternatives to find safe and adequate housing. The proposed budget will enable FmHA

to make loans and intensify its debt collection and loan servicing activities in an effort to more effectively manage its $25 billion housing loan portfolio and to lessen loan delinquency rates. While these loans will be primarily used for portfolio management, some portion may be used for new borrowers prior to implementation of the new Rural Housing Block Grant Program."

The reference to assistance for low-income individuals and families without other alternatives is a restatement of the applicable law, and not new policy; it serves simply to soften the impact of other Administration actions. Present law and standard practice already limits FmHA to assist those who need housing but are unable to obtain credit from other sources or from their own resources. The more significant messages contained in these statements are that:

- The proposed block grant program will replace, not supplement, the FmHA direct lending programs.
- Most of the limited direct loan funds available for FY 1984 will be used as subsequent loans and for other servicing transactions.
- The Administration will focus these portfolio management resources on low-income people (those with incomes below 80% of the area median).
- FmHA will use its resources to collect money and reduce delinquency at a time when many of its borrowers are victims of the nation's economic recession and are most in need of program flexibility to ensure that program purpose and the spirit of the law are served.

Thus, the proposed budget is attuned almost solely to the frequency of programmatic housekeeping and to reducing delinquency. It does not support a housing "program;" it simply states a determination to "service" FmHA's portfolio.

The following tables include: (1) rural housing estimates from the Budget Appendix, (2) a comparison of dollar levels for 1979 through 1984, and (3) a comparison of unit levels for 1979 - 1984.

Table I

FY 1984 RURAL HOUSING BUDGET ESTIMATES
(Dollars in Thousands)

PROGRAM	DOLLARS	UNITS
Sec. 502 subsidized purchase of new dwellings	$ 60,000	1,000 (a)
Sec. 502 subsidized purchase of existing dwellings	195,000	1,000 (a)
Sec. 502 subsidized repair only	25,000	600 (a)
Sec. 502 unsubsidized	-0-	-0-
Sec. 504 loans	1,000	50 (a)
Sec. 504 grants	-0-	-0-
Sec. 514 farm labor housing loans	3,000	388
Sec. 516 farm labor housing grants	4,393	(b)
Sec. 515 subsidized rural rental housing	16,000	(b)
Sec. 523 self-help T.A. grants	-0-	N/A
Sec. 523 land development fund	-0-	N/A
Sec. 524 rural site loans	-0-	N/A
Sec. 509(c) compensation-construction defects	-0-	N/A
Sec. 521 rental assistance	62,000	(6,000)(c)
Sec. 531 rural housing block grant	850,000	(b)
Sec. 501(e)	-0-	N/A
RHF-collection & servicing contracts	10,000	N/A
TOTALS	$1,116,393	3,038

(a) Reflects fact that a substantial part of program dollars will be used for subsequent loans and servicing.

(b) No estimate for units in budget.

(c) Five year renewals.

TABLE II

DOLLAR LEVELS, FmHA PROGRAMS, FY 1979-1984
(dollars in Millions and Rounded)

Farmer Programs	1979	1980	1981	1982	Appropriation 1983	Budget 1984
Farm Ownership Loans	$ 763.2	$ 954.1	$ 813.3	$ 661.6	$ 775.0	$ 650.0
Farm Operating Loans	894.8	874.8	847.6	1,251.0	1,510.0	1,860.0
Emergency Disaster Loans	2,871.6	2,260.0	5,112.3	2,173.4	1,540.0	1,540.0
Economic Emergency Loans	3,089.5	1,185.5	1,245.4	-0-	-0-	-0-
Guaranteed Emergency Livestock Loans	19.0	-0-	-0-	-0-	-0-	-0-
Soil and Water Loans	51.5	54.6	49.6	24.8	53.1	26.0
Irrigation and Drainage Loans	.6	.5	.3	1.3	-0-	-0-
Watershed & Flood Prevention Loans	4.8	9.9	16.9	1.1	26.0	-0-
Resource, Conserv. & Develop. Loans	1.9	1.8	2.0	.9	4.0	-0-
Indian Land Acquisition Loans	11.0	6.4	3.6	1.0	12.0	4.0
Grazing Association Loans	2.1	4.2	-0-	-0-	-0-	-0-
Recreation Loans	2.2	2.3	1.8	.7	-0-	-0-
	7,712.2	6,355.0	8,092.8	4,115.8	3,920.2	4,080.0
Rural Housing						
502 Home Ownership Loans	2,878.1	2,843.4	2,589.3	2,476.4	2,300.0	280.0
504 Low-Income Repair Loans	14.7	21.9	17.9	10.0	24.0	1.0
504 Low Income Repair Grants	19.0	24.0	22.7	13.6	12.5	-0-
514 Farm Labor Housing Loans	36.3	24.6	18.5	11.9	19.0	3.0
516 FarmLabor Housing Grants	32.4	22.3	10.5	14.9	12.5	4.393
515 Rural Rental Housing	869.5	881.3	864.8	953.7	940.0	16.0
523 Self-Help T.A. Grants	5.6	6.2	12.4	4.7	12.5	-0-
523 & 524 Site Loans	4.7	1.3	.9	.4	2.0	-0-
525 Tech. & Supv. Assistance Grants	2.5	1.5	1.0	-0-	-0-	-0-
Rental Assistance Contracts	423.0	393.0	403.0	398.0	123.745	62.0
Rural Housing Block Grants	-0-	-0-	-0-	-0-	-0-	850.0
TOTAL RURAL HOUSING(a)	4,285.8	4,219.5	3,941.0	3,883.6	3,446.245	1,216.393(a)
Community Programs						
Water and Waste Loans	900.0	700.0	750.0	375.0	375.0	250.0
Water and Waste Grants	291.6	298.7	210.4	133.8	125.0	90.0
Community Facilities Loans	247.0	240.0	260.0	126.2	130.0	100.0
Rural Development Grants	10.0	10.0	5.0	-0-	-0-	-0-
Rural Dev. Planning Grants	5.0	6.0	-0-	-0-	-0-	-0-
Energy Assistance Grants	18.7	20.4	16.5	3.3	-0-	-0-
TOTAL COMMUNITY PROGRAMS	1,472.3	1,275.1	1,244.8	638.3	630.0	440.0
Business and Industry						
Business and Industrial loans	1,219.3	1,073.8	652.3	125.1	300.0	-0-
TOTAL ALL PROGRAMS	$ 14,689.6	$ 12,923.4	$ 13,930.0	$ 8,762.8	$ 8,296.445	$ 5,736.393

(a) Construction defects program authorized at $2.0 for FY 81, 82 and 83 was proposed at zero for 84. $10.0 also requested in 84' for collection and servicing contracts.

TABLE III

FmHA HOUSING UNITS FISCAL YEARS 1979 - 1984

Program	1979	1980	1981	1982	Approp. 1983 (est)	Budget 1984
502 Substandard	74,589	76,805	74,638	56,850	53,700	2,600
502 Unsubsidized	35,793	25,918	12,603	5,107	-0-	-0-
502 Above Moderate	377	597	174	-0-	-0-	-0-
504 Loans	5,651	7,570	5,799	2,771	6,621	50
504 Grants	6,842	5,598	7,687	3,937	3,617	-0-
514 FLH Loans 516 FLH Grants	2,575	1,606	913	565	821	388
515 Subsidized	36,521	33,565	29,643	30,616	27,434	no est
515 Unsubsidized	2,129	2,277	784	-0-	-0-	-0-
RH Block Grant	N/A	N/A	N/A	N/A	N/A	no est
Sub-total units	164,477	156,927	132,241	99,846	92,193	3,038
Rental Assistance* Units	22,623	20,000	17,655	14,280	11,750	6,000
TOTAL UNITS*	187,100	176,927	149,896	144,126	103,943	9,038

*Not unduplicated units, housing unit production contained in subtotal.

Program By Program Analysis

Section 502 Home Ownership Loans: Subsidized loans are decreased by $2,020 million or 87.8%. HAC estimates a reduction of 51,000 units. It is virtually impossible to replace this level of production by using the $850 million to subsidize state housing finance agency issuances. The Section 502 program has remained a bulwark for rural homebuilders during the recession of the past two years. Based on two jobs per new unit (the rule of thumb calculation used by the National Association of Homebuilders) and on FmHA's FY 1982 performance in new unit construction, HAC estimates 64,500 jobs will be lost in FY 1984. FmHA used 100% of the funds available in FY 1982.

Section 504 Low-Income Repair Loans and Grants: Loans are decreased from $24 million or 95.8%. A zero level is requested for Section 504 grants, down $12.5 million from FY 1983. Based on cost per unit figures available in past budgets, HAC estimates a decrease of 10,188 units under the combined loan/grant reductions in FY 1984.

Section 514/516 Farm Labor Housing Loans and Grants: The proposed budget would cut loan levels by 84.2% from $19 million in FY83 to $3 million in FY84. Farm Labor Housing Grant levels would remain unchanged at the $12.5 million level. The Administration estimates this amount will produce 388 units. It should be noted that a 1980 study, required by law and commissioned by FmHA/USDA, revealed a need for more than 750,000 units of housing for migratory farm workers. There is no mention of need in the Budget. Moreover, temporary housing, used for varying periods of time each year, can be produced at far less cost than the Budget estimates indicate.

Section 515 Rural Rental Housing: The FY 1984 Budget request is a $924 million (or 98.3%) reduction from FY 1983. The anticipated unit reduction is 100% of the 27,434 units for FY83 since FmHA plans to use the $16 million for subsequent loans and servicing. HAC conservatively estimates, based on calculations described above, that more than 54,000 jobs will be lost as a result of this action.

Section 523 Self-Help Housing Technical Assistance Grants: This program would be unfunded for 1984. The Administration gives no reason for its closeout. The program was funded at $12.5 million in FY 1983. It provides administrative and supervisory assistance to organizations which help families build their own homes. FmHA records show that the savings are greater than the cost of the grant program. Thus, a small but extremely effective program, which has provided the "bootstraps" used by rural groups to help low-income families help themselves, is proposed for termination, without explanation.

Section 523 Self-Help Housing Land Development Fund: The Administration is requesting legislation to abolish the fund and transfer its assets. The Budget Appendix notes that other program assistance is available for site development under the RHIF. This is false; no funding is requested for the applicable program. The Appendix states that the program receives little use but does not mention that its use is restricted due to limited money and FmHA's unwillingness to make it an easy program to use.

Section 524 Rural Housing Site Loans: The Administration proposes total elimination of an already minimal fund of $2 million even though the fund simply provides market rate loans which are not costly to the government.

Section 521 Rental Assistance: The $62 million request is down $61.745 million or 49.9% from an inadequate 1983 level. There is a loss of 5,750 assisted units and none of those remaining are for new projects. The language does permit some flexibility in the event all 6,000 units are not needed for renewals. The Rental Assistance subsidy provides FmHA with the ability to serve those at or below 50% of median income. A good faith effort to use 30% of all rural housing funds for this group is required by Section 517(o) of Title V of the Law.

Additionally, the Administration will request legislation to require that tenants pay 30% of their income for shelter prior to being eligible for Rental Assistance. Recent studies indicate that this 50% increase in rent burden would adversely affect those eligible tenants at or below 50% of median income, to the point at which they could not afford to participate in the program. Thus, the Budget in effect proposes to serve only those with higher incomes (those within 80% of median income).

Section 509(c) Compensation for Construction Defects: Zero funding is proposed. During the past few years, very little has been expended under this authority. It is, however, an important insurance for low-income people whose Section 502 homes are built with defects. The decision to not fund it reflects a callous attitude toward the few but hard-hit victims of poor construction.

Section 531 Rural Housing Block Grant Program: $850 million is budgeted to be block granted to the states. The parameters of this program are not well defined. It appears that states will have full discretion over the type of programs which can be funded using block grant money. Beyond this assumption, there are only questions:

- First, how can unit production be calculated when the program is so ill-defined? The Administration chose not to offer unit estimates. HAC developed its own estimates, based on the requested appropriation of $850 million and the Administration's estimated outlays of $280.5 million in FY 1984. Using the latter as a starting point, and hypothesizing a 50:50 ratio of home ownership to rental production, with block grant money used to write down interest to 1% (possible under the FmHA program) over ten years, HAC estimates that 7,073 units would be produced. (See Appendix for more detailed breakdown).
- Are the several states able, financially, to carry out rural housing programs using the block grant funds?
- Will the result be a reasonably uniform approach to meeting the goals of the Housing Act of 1949?
- Has past performance of State Housing Finance Agencies in rural areas warranted confidence in the transfer? Will the bond markets accept small projects in remote areas?
- What will replace the 1900 FmHA county offices as a rural delivery network?
- What is our experience with the Small Cities Community Development Block Grant program? Has it under state administration proven to be an effective means for providing services, especially housing services, to low-income people, and/or low-income rural people most in need? Surely, it would make sense to wait until the

performance of states in administering CDBG is determined, before delegating to them an even larger and more complicated responsibility for rural housing.

Finally, it seems clear that the intent of the Administration is to block grant the rural housing programs as a first step to transfering their funding to the states. Recent history shows that rural housing will be encouraged down the path towards elimination already taken by social services block grants, and planned for CDBG.

The Proposed Budget as a Response to Need

In HAC's assessment, the budget proposal does not reflect a serious intent to address the problem of substandard housing in rural areas.

In 1980, there were 1,973,956 occupied substandard housing units in the FmHA service areas, exclusive of nonmetro places of 10,000-20,000 population. Of that number 1,000,989 units lacked complete plumbing. (See Table 4.) Annual Housing Survey data indicate that 54.2% of the households occupying rural, substandard housing have incomes of $10,000 or less and 36.7% have incomes of $6,000 or less. When these data are interpolated, one can calculate that there are:

- 1,069,884 households occupying rural substandard units and with incomes at $10,000 or less.
- 724,442 households occupying rural substandard housing units and with incomes of $6,000 or less.

In addition, a recent study contracted by FmHA reveals a need for 800,000 units for migrant farmworkers.

The proposed assistance for 3,038 units at the federal program level and a possible 7,073 additional units through the block grant clearly is an inadequate response to these numbers. And the chosen vehicle for program implementation--state governments--are not an appropriate substitute for the existing FmHA agency network. Both the goals and the methods selected by the Administration to address rural housing need reflect the intent to abdicate government responsibility for a problem which will not disappear. In fact, without the assistance slated for elimination by this Administration, inadequate rural housing will increasingly undermine public health and safety and the quality of life in rural areas.

TABLE IV

1980 CENSUS OF HOUSING

HC80-1-A

SELECTED DATA

	(1) TOTAL	(2) RURAL	(3) Outside Urbanized areas, places of 2500 to 10,000 pop.	(4) Rural plus places of 2500 -10,000
1. Population	225,250,192	59,494,813	14,398,522	73,893,335
Percent	100%	26.4%	6.4%	32.8%
2. Occupied year around housing units	80,136,530	19,837,956	5,174,694	25,012,650
Percent	100%	24.8%	6.5%	31.1%
3. Occupied yr around units lacking complete plumbing	1,739,378	902,249	98,740	1,000,989
Percent	100%	51.9%	5.7%	57.5%

	(1) TOTAL	(2) RURAL	(3) Outside Urbanized areas, places of 2500 to 10,000 pop.	(4) Rural plus places of 2500 -10,000
4. Occupied yr around units overcrowded	3,352,303	768,241	204,724	972,967
Percent	100%	22.9%	6.1%	29.0%
5. Total substandard occupied units	5,091,681	1,670,492	303,464	1,973,956
Percent	100%	32.8%	6%	38.8%
6. Percent of all occpied units:				
a- lacking complete plumbing	2.2%	4.5%	1.9%	4%
b- overcrowded	4.2%	3.9%	4.%	3.9%
c- substandard	6.4%	8.4%	5.9%	7.9%

7. All Other Substandard Units

(Column (1) minus column(4)):
3,117,725

Percent of total 61.2%

Percent of all
other occupied
units substandard 3.7%

FmHA's RURAL DEVELOPMENT PROGRAMS

FmHA's Rural Development programs include water and waste disposal loans and grants, community facility loans, and business and industry loans. Two other programs, rural development planning grants and alcohol production facility loans, have been eliminated under this Administration, and the current budget request proposes the elimination of business and industrial loans in 1984. Potentially more serious for low-income communities are the proposed decreases for water and waste disposal and community facilities programs, amounting to a $490 million cutback from the 1983 level. Even without taking inflation into account, the $440 million budget request for these programs approaches only about a third of the 1980 level.

BUDGET LEVELS
(Dollars in Millions)

	FY80	FY81	FY82	FY83	Prop. FY84
Water and Waste Disposal Loans	700	750	375	375	250
Water and Waste Disposal Grants	299	210	134	125	90
TOTAL	999	960	509	500	340
Community Facility Loans	240	260	126	130	100
TOTAL	1,239	1,220	635	630	440

The actual extent of these decreases can be partially grasped by taking inflation into account, and calculating the cumulative losses since 1980. For example, using 1980 dollars as the base and applying inflation factors for subsequent years, it becomes clear that in effect the Administration is proposing for 1984 a three-fourths cutback in the water and waste disposal resources, amounting to a cumulative loss of $2.5 billion in these resources since 1980. In other words, if funding levels had been kept constant since 1980, rural communities would have had by the end of 1983 $1.5 billion more in water supply and sewage facilities in rural areas; if the 1984 budget request is adopted, they will have lost an additional billion dollars' worth. These facilities, of course, will become more expensive to provide the longer their production is delayed.

The justification for the decrease for the water and waste disposal loans is that "substantial progress has been made in the provision of modern water and waste systems throughout the country and there is need for the Federal government to reduce federal credit which can be provided by the private sector." The same progress and need for federal withdrawal is cited for the community facilities program. Both of these declarations are followed later in the text of budget explanation by this statement:

> "The Farmers Home Administration (FmHA) provides a source of funding for water and waste disposal systems and essential community facilities to those communities that are unable to obtain private funding. Without aid of the Federal government, these communities, which are mainly low-income and sparsely populated, would have no other source of financing available with terms or conditions they could meet."

It is questionable whether there has in fact been much progress in rural areas in recent years. The Farmers Home programs have helped many communities, but their assistance is probably not keeping pace with pollution and a deteriorating infrastructure throughout rural areas. Estimates in 1978 indicated that 13 million rural people were consuming unsafe water. By June of 1982, a Congressionally mandated study by EPA was reported to have found that nearly 39 million (or 63% of) rural residents are drinking water that may be unsafe.

THE HUD BUDGET PROPOSAL FOR 1984*

The Administration proposes a 94% cut in the level of new HUD budget authority for assisted housing. Last December, Congress provided $8.6 billion for low-income housing for 1983; the Administration proposes only $515 million for 1984. Otherwise, the modest expansion of low-income housing assistance (90,000 net additional units) will be supported by (a) a $3.1 billion deferral of 1983 funds and (b) recapture of funds appropriated in earlier years.

The level of budget authority for HUD's low-income housing programs is only 1.9% of the level provided when President Reagan took office, and it is only 2.1% of the $23.9 billion level proposed by President Ford in the budget he submitted to Congress just days before leaving office. Moreover, these are "current dollar" comparisons, which do not allow for inflation.

The Administration is again proposing to count food stamps as income in determining rents and eligibility for low-income housing. About half the households in public housing or Section 8 receive food stamps; they are the poorest low-income housing tenants, and this proposal would increase their rents by 37% of the value of their food stamps, with the greatest absolute increases falling on the poorest tenants, since they have the highest food stamp allotments. This change requires legislation.

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* Most of the text in the section on HUD was prepared by the National Low-Income Housing Coalition.

While there are no other rent increases proposed in the budget itself, HUD has proposed two major program changes which would also increase housing costs for subsidized tenants. The first changes the manner in which income is calculated, to eliminate most current deductions and exclusions (such as day care expenses for working mothers and extraordinary medical expenses). The second would reduce the amount of the subsidy available under the Section 8 existing program (a "housing voucher" program which has been in effect since 1974 and which now assists over one-half million households). This is to be done by reducing the base for calculating the "fair market rents" (FMRs) which determine the subsidy amount and then letting tenants pay the extra amount (or, if they can find cheaper units, keep the savings).

In other modifications to the Section 8 Existing program, the Administration is proposing to shorten the contract term from 15 years to 5 years. This gives a paper saving, since the budget authority for low-income housing programs equals the annual cost multiplied by the term of the contract. So this change reduces budget authority by two-thirds; it also means a substantial jump in costs in 1989 when the contracts expire, instead of deferring contract renewals to 1999. Alternatively, the full amount appropriated for 1983, if used as proposed by the Administration, could fund 364,000 households instead of 67,000 households.

In a change from last year's proposals, the Administration is not willing to allow annual subsidy adjustments for cost increases, but these are to be paid for by attrition in program level. In other words, if there is an average increase of 5% per year in fair market rents, by the end of the five years, there would be only 65,816 households receiving payments, instead of the 80,000 initially assisted. Again, this results in a paper saving, since Section 8 existing costs are now calculated with a reserve built in to cover future cost increases.

The Administration also proposes a change in how public housing operating subsidies are to be calculated. These subsidies are intended to cover the difference between income from tenant rents and the cost of operating public housing projects. The new proposal is to base the subsidies on "fair market rents" in the community, not on the cost of operating the projects. Moreover, after a phase-in period, operating and modernization subsidies would be combined. The immediate effect of this proposal would be to reduce 1984 public housing operating subsidies by one quarter while simultaneously reducing modernization funding by 40%.

The budget reflects the Administration's contention that there is no need for additional housing units intended for occupancy by low-income people. Thus, the only new housing would be 10,000 units for elderly and handicapped people (under the Section 202 program). As in 1983, there would be no rural set-aside of assisted units. No other new or rehabilitated housing would be provided under the public housing or Section 8 programs. Moreover, the Section 8 moderate rehabilitation program would be ended immediately (with funds approved by Congress for 15,000 units in 1983 deferred to 1984 and put to other use).

The following tables provide details on the Administration's proposals and how they compare with previous years.

TABLE V. CHANGES IN HUD HOUSING PROGRAMS 1980-84, SHOWING 1983-84 AND 1980-84 CHANGES.

Explanation and Comments. This table compares, for the public housing and Section 8 programs, changes in funding levels and unit reservations. Actual figures are shown for 1980, 1981, and 1982. Then come three columns on 1983: the appropriation as enacted by Congress, HUD's proposed revision, and the differences between the two. The 1984 Administration request is followed by comparison with the 1983 level (using the Administration's proposed revision) and with actual levels in 1980. The critical lines for understanding this table are "new budget authority" which shows the additional amounts actually available or proposed for additional low-income housing assistance and "net additional units" which shows how many additional households will be assisted. The table also shows the level of construction, rehabilitation, and use of existing housing and program mix.

The differences in the number of units are underestimated because of a change in the basis for figures: 1980 figures are net reservations (gross reservations adjusted for cancellations, etc.); all later figures are gross reservations. An effort has been made to show unit reservations which represent an addition to the stock of low-income housing from those which substitute Section 8 assistance for subsidies now provided under other programs. Figures for the Section 202 elderly and handicapped housing program and the Indian housing program are in parentheses because they are included in the Section 8 new and public housing totals, respectively.

Note that the Administration is proposing deferral of $3.1 billion in budget authority from 1983 to 1984. New budget authority for low-income housing would drop by 94%, from $8.6 billion in 1983 to $0.5 billion in 1984. (When long-term budget authority is considered, the proposed decreases are so drastic as to appear unreal. According to the House Budget Committee, using figures made available to it by the Congressional Budget Office, the President's budget proposes a negative amount including rescission of $-2.319 billion for HUD rental assistance programs, which is a decrease of $10.970 billion from the 1983 level (before rescissions) of $8.651 billion, and roughly a cut of 473%.)

The table does NOT show the impact of the Administration proposal to count food stamps as income in determining eligibility and rents in subsidized housing. This proposal was rejected by the Senate last year.

The bottom of the table shows the impact of a proposal to change public housing subsidies. Presently, there are three subsidies for public housing: (1) annual contributions to amortize the bonds financing the housing, which are shown in the "use of budget authority" section of the table; (2) operating subsidies to cover the gap between income from rents and the costs of operations; and (3) modernization funds to retrofit and improve older projects. HUD proposes to base operating subsidies on fair market rents in the private market, rather than the cost of operating public housing and, eventually, to combine modernization and operating subsidies. For this reason, we total the operating subsidies and capital costs financed through the modernization funds; the result is a proposed cut of 11% in funds available to support public housing.

TABLE V

CHANGES IN HUD HOUSING PROGRAMS, 1980-84, SHOWING 1983-84 AND 1980-84\CHANGES.

PROGRAM/ACTIVITY		(a) 1980 Actual	(b) 1981 Actual	(c) 1982 Actual	(d) 1983 Law	(e) 1983 HUD Revision	(f) 1983 Change	(g) 1984 Proposed	(h) Change 1983-84 Amount	(i) Change 1983-84 %	(j) Change 1980-1984 Amount	(k) Change 1980-1984 %
SECTION 8/PUBLIC HOUSING												
Budget Authority												
New budget authority	$	26680.1	30169.8	17373.5	8651.5	8651.5	0	514.7	-8136.8	-94.1	-26165.4	-98.1
Permanent authority	$	39.5	32.3	30.3	24.7	24.7	0	23.8	-0.9	-3.6	-15.7	-39.7
Carryover balances	$	2531.7	2290.8	2772.1	2340.4	2340.4	0	0	--	--	-2531.7	-100.0
Recaptures	$	0	5226.9	2831.4	4600.0	4932.0	332.0	4346.3	--	--	4346.3	--
Subtotal	$	29251.3	37719.5	23007.2	15616.5	15198.5	-418.0	1884.8	-10313.4	-87.6	-27366.5	-93.6
Rescissions/deferrals	$	0	-5519	-4099	0	-3081	-3081	3081	--	--	3081	--
Total	$	29251.3	32200.7	18908.6	15616.5	12067.3	-2749.2	7966.0	-4901.3	-38.1	-21285.3	-72.8
Use of Budget Authority												
Section 8												
New const/sub rehab	$	10705.0	10245.2	3704.2	1942.0	1834.0	-108.0	1376.0	-458.0	-25.0	-9329.0	-87.1
Moderate rehab	$	0	0	551.4	1000.0	0	-1000.0	0	0	0	0	0
Existing/vouchers	$	4130.7	5791.2	1279.9	3782.0	641.9	-3140.1	916.8	274.9	42.8	-3221.9	-77.8
Loan management	$	--	--	184.9	0	187.5	187.5	75.0	-112.5	-60.0	75.0	--
Property disposition	$	--	--	551.6	684.0	1410.0	726.0	93.5	-1316.5	-93.4	93.5	--
Conversions, etc	$	--	313.7	2338.3	2668.5	2668.5	0	3354.7	686.2	25.7	3354.7	--
Amendments	$	3223.1	3007.3	4020.0	1406.2	1096.5	-309.6	391.0	-705.5	-64.3	-2832.1	-87.9
Subtotal	$	18067.1	19357.4	12630.3	11454.7	7946.5	-3508.2	6498.7	-1447.8	-18.2	-11568.4	-64.0
Public housing												
Conventional	$	3656.0	4195.7	1232.4	0	0	0	0	0	0	-3656.0	-100.0
Indian	$	847.9	471.5	494.3	361.8	361.8	0	0	-361.8	-100.0	-547.9	-64.6
Amendments	$	956.0	935.4	372.1	532.0	532.0	0	45.0	-487.0	-91.5	-911.0	-95.3
Lease/interest adjust	$	32.3	30.3	24.7	23.0	1437.0	1414.0	22.3	-1415.5	-98.4	-10.0	-30.9
Modernization	$	999.6	1699.2	1799.9	2589.3	2589.3	0	1400.0	-1189.3	-45.9	400.4	40.1
Subtotal, pub hsg (	$	6492.6	7332.0	3923.3	4161.9	4920.9	759.0	1467.3	-3453.6	-70.2	-5025.3	-77.4
Total obligations	$	24559.7	26689.4	16553.7	15616.5	12067.3	-2749.2	7966.0	-4901.4	-38.1	-16593.7	-67.6
Contract Authority												
Net new authority	$	1140.7	1417.4	897.2	519.7	519.7	0	408.7	-111.0	-21.4	-732.0	-64.2
Total authority	$	1182.7	1155.1	1045.6	922.5	821.5	-101.0	711.6	109.9	13.6	-471.1	-39.8
Section 8 units	U	(net)	(gross)	(gross	(gross)	(gross)	(gross)	(gross)	(gross)			
New/sub rehab	U	92763	73061	26973	14000	14600	600	10000	-4600	-31.5	-82763	-89.2
Section 202	U	(18720)	(15166)	(15400)	(14000)	(14000)	0	(10000)	(-4000)	-28.6	(-8720)	-53.4
Moderate rehab	U	26167	24981	6799	15000	0	-15000	0	0	0	-26167	-100.0
Existing/vouchers	U	50235	53947	23418	67146	67146	0	80000	12854	19.1	29765	59.3
Net addtl units	U	169165	152789	57190	96146	81746	-14400	90000	8254	10.1	-79165	-46.8
Conversions, etc	U	--	31342	76216	75000	91000	16000	114441	23441	25.8	114441	--
Total, Section 8	U	169165	184131	133406	171146	172746	1600	204441	31695	18.3	35276	20.9
Public Housing units	U	36727	36370	12136	2000	2000	0	0	-2000	-100.0	-36727	-100.0
Indian housing	U	(4893)	(3120)	(3122)	(2000)	(2000)	0	0	(-2000)	-100.0	(-4893)	-100.0
TOTAL/SECTION 8/PUB HSG	U	205892	220501	145542	173146	174746	1600	204441	29695	17.0	-1451	-0.7
NET ADDTL UNITS	U	205892	189159	69326	98146	83746	-14400	90000	6254	7.5	-115892	-56.3
Rescissions												
236 rental housing BA	$	--	--	--	-300.8	-300.8	0	-403.1	-102.3	26.9	-403.1	--
Rent supplement BA	$	-13.1	-143.5	-1059.5	-2830.4	-2830.4	0	-2374.8	455.6	-16.1	-2361.7	18020.1
Housing payment outlays	$	4529.3	5746.5	6880.2	7774.0	7774.0	0	8532.0	758.0	9.8	4002.7	88.4
Total assisted units	U	3105070	3297451	3507896	3698000	-3698000	0	3948000	250000	6.8	842930	27.1
Pub hsg operating subs BA	$	755.0	1070.8	1493.5	1350.6	1281.6	-69.0	1636.5	354.9	27.7	881.5	116.8
Pub hsg modernization BA	$	999.6	1699.2	1799.9	2589.3	2589.3	0	1400.0	-1189.3	-45.9	400.4	40.1
Capital costs financed	$	545.3	926.9	857.6	1271.1	1271.1	0	687.3	-583.8	-45.9	142.0	26.0
Op subs + cap costs	$	1300.3	1997.7	2351.1	2621.7	2621.7	0	2323.8	-297.9	-11.4	1023.5	78.7

Source: Low Income Housing Informat(from information in HUD Budget Summaries, 1982-84)

TABLE VI. CHANGES IN HUD LOW-INCOME HOUSING PROGRAM, 1980-84, SHOWING DIFFERENCES BETWEEN ADMINISTRATION PROPOSALS AND CONGRESSIONAL ACTION IN 1982 AND 1983.

Explanation and Comments. While this table shows HUD program levels from 1980 (actual) through 1984 (proposed), it is chiefly interesting for its analysis of what happened to HUD's proposals last year.

Column (c) shows the revision of the 1982 budget proposed in January, 1982: a rescission of $9.4 billion in budget authority and cessation of an expansion in subsidized housing, except for commitments made between the start of the fiscal year on October 1, 1981, and submission of the revision four months later. The budget contained a cap of $3.8 million on the number of units that could EVER be subsidized under HUD's programs.

Column (d) shows what actually happened. The Administration got less than half the rescission it requested. Moreover, almost two thirds of the funds slated for recapture (by cancelling projects in the pipeline) were saved. Net additional units reserved were almost double the Administration's proposal.

Column (e) shows the difference in dollars, between the Administration's proposal for 1982 [column (c)] and what actually happened last year [column (d)]. Column (f) shows the change in percent [column (e) as a percent of column (c)].

A similar picture emerges for 1983, as shown in columns (g) through (j). Congress provided $11.1 billion more for low-income housing than requested: appropriating $8.6 billion instead of rescinding $2.5 billion. The result is that almost 60,000 more households will get assistance than would have under the Administration's budget. Moreover, the moderate rehabilitation and Indian housing programs have been kept alive. Public housing operating subsidies and modernization were both considerably increased as Congress signaled its intention to keep public housing projects for low-income families, and provide the needed assistance to do this.

Proposals to count food stamps as income and to cap the total number of units assisted under all HUD programs at $3.8 million were rejected.

The CDBG program would be reauthorized for another three years at the same level, but the program is to be merged with General Revenue Sharing over a five year period. Each year, one-fifth of the funds could be transferred from CDGB to any other use by the recipient locality.

TABLE VI

HUD LOW INCOME HOUSING PROGRAMS, 1980-84 (Dollars in millions)

Program/Activity		(a) 1980 Actual	(b) 1981 Actual	(c) 1982 HUD	(d) 1982 Actual	(e) Change HUD/Actual Amount	(f) Change HUD/Actual %	(g) 1983 Budget	(h) 1983 Law	(i) Change HUD/Law Amount	(j) Change HUD/Law %	(k) 1984 Proposed
SECTION 8/PUBLIC HOUSING												
Available Budget Authority												
New budget authority	$	26680.1	30169.0	17373.5	17373.5	0	0	0	8651.5	8651.5	--	514.7
Permanent authority	$	39.5	32.3	30.3	30.3	0	0	24.8	24.7	0.1	0.4	23.0
Carryover balances	$	2531.7	2290.0	2772.1	2772.1	0	0	0	2340.4	2340.4	--	0
Recaptures	$	0	5228.2	7483.8	2831.3	-4652.4	-62.2	9919.1	4600.0	-5319.1	-53.6	4346.3
Subtotal	$	29251.3	37719.5	27659.7	23007.2	-4652.5	-16.8	9943.9	15616.5	5672.6	57.0	4964.8
Rescissions/deferrals	$	0	-5519.1	-9399.8	-4098.6	5301.1	-56.4	-2415.5	0	2415.5	-100.0	3001.2
Total	$	29251.3	32200.7	18259.9	18908.6	648.7	3.6	7528.4	15616.5	8088.1	107.4	7966.0
Use of Budget Authority												
Section 8												
New constr/sub rehab	$	10705.0	10245.2	2906.6	3704.2	797.6	27.4	1310.0	1942.0	632.0	48.2	1376.0
Moderate rehab	$	0	0	0	551.4	551.4	--	0	1080.0	1080.0	--	0
Existing/vouchers	$	4130.7	5791.2	1310.1	1275.9	-30.2	-2.3	300.0	3702.0	3402.0	1160.7	916.0
Loan management	$	--	--	?	184.9	--	--	--	0	0	--	75.0
Property disposition	$	--	--	?	551.6	--	--	100.0	684.0	584.0	584.0	93.5
Conversions (existing	$	--	313.7	7162.2	2338.3	-4823.9	-67.4	894.6	2668.5	1773.9	198.3	3354.7
Amendments	$	3231.4	3007.3	3106.8	4024.0	917.2	29.4	1200.0	1406.2	206.2	17.2	391.0
Subtotal	$	18067.1	19357.4	14485.7	12630.3	-1855.4	-12.8	3804.6	11454.7	7650.1	201.1	6498.7
Public housing												
Conventional	$	3656.0	4195.7	22.5	1232.4	1209.9	5377.3	0	0	0	0	0
Indian	$	847.3	471.5	26.9	494.3	467.4	1738.0	0	361.0	361.0	--	0
Amendments	$	956.0	935.4	500.0	372.1	-127.9	-25.6	500.0	532.0	32.0	6.4	45.0
Lease/interest adjust	$	32.3	30.3	24.8	24.7	-0.1	-0.4	23.0	23.0	0	0	22.3
Modernization	$	999.6	1699.2	1000.0	1799.9	-0.1	0	1800.0	2582.3	782.3	43.9	1400.0
Subtotal, pub hsg (	$	6492.6	7332.0	2374.2	3923.3	1549.2	65.3	2323.8	4161.8	1838.1	79.1	1467.3
Total obligations	$	24559.7	26689.4	16859.9	16553.7	-306.2	-1.8	6128.4	15616.5	9488.1	154.8	7966.0
Contract Authority												
Net new contract auth (	$	1140.7	1417.4	897.2	897.2	0	0	-2.1	519.7	521.8	25420.0	408.7
Total contract authorit	$	1102.7	1155.1	985.4	1045.6	60.2	6.1	507.8	922.5	414.7	81.7	711.6
Section 8 units	U	(net)	(gross)	(gross)	(gross	(gross)	(gross)	(gross)	(gross)	(gross)	(gross)	(gross)
New/sub rehab	U	92763	73861	22502	26973	4471	19.9	10000	14000	4000	40.0	10000
Section 202	U	(10720)	(15166)	(16933)	(15400)	(-1533)	(-9.1)	(10000)	(14000)	(4000)	(40.0)	(10000)
Moderate rehab	U	26167	24981	10720	6799	-3921	-36.6	0	15000	15000	--	0
Existing/vouchers	U	50235	53947	3385	23418	20033	591.8	30000	67146	37146	123.8	80000
Net addtl units	U	169165	152789	36607	57190	20583	56.2	40000	96146	56146	140.1	90000
Conversions, etc	U	--	31342	183000	76216	-103784	-56.7	81615	75000	-6615	-8.1	114441
Subtotal, Section 8	U	169165	184131	219607	133406	-86201	-39.3	121615	171146	49531	40.7	204441
Public Housing units	U	36727	36370	310	12136	11826	3814.8	0	2000	2000	--	0
Indian housing	U	(4893)	(3120)	(160)	(3192)	(3032)	(1895.0)	0	(2000)	(2000)	--	0
TOTAL SECTION 8/PUB HSG	U	205892	220501	219917	145542	-74375	-33.8	121615	173146	51531	42.4	204441
NET ADDTL UNITS	U	205892	189159	36917	69326	32409	87.8	40000	98146	58146	145.4	90000
Rescissions												
236 rental housing (BA	$	--	--	--	--	--	--	--	-300.0	-300.0	--	-483.1
Rent supplements (BA)	$	-13.1	-143.5	-2707.5	-1059.5	1728.0	-62.0	-2030.4	-2030.4	0	0	-2374.0
Housing payment outlays	$	4529.3	5746.5	6726.0	6880.2	154.2	2.3	7352.0	7774.0	422.0	5.7	8532.0
Total assisted units	U	3105070	3297451	3546700	3507896	-38804	-1.1	3660480	3690000	29520	0.8	3948000
Pub hsg operating subs BA	$	755.0	1070.0	1296.1	1493.5	197.4	15.2	1075.0	1350.6	275.6	25.6	1636.5
Pub hsg modernization BA	$	999.6	1699.2	1800.0	1799.9	-0.1	0	1800.0	2589.3	789.3	43.9	1400.0
Capital costs financed	$	545.3	926.9	981.9	857.6	-124.3	-12.7	981.9	1271.1	289.2	29.5	687.3
Op subs + cap costs	$	1300.3	1997.7	2278.0	2351.1	73.1	3.2	2056.9	2621.7	564.8	27.5	2323.8

Source: Low Income Housing Information Service (from information [illegible]

A first step in loosening up CDBG funds for previously ineligible activities is the proposal to permit use of funds to build housing. Without additional funds, the proposal would not help rural areas, and could in fact result in a diversion of their funds into costly projects in the larger non-metro cities. Studies have indicated that only block grants of a size to serve cities of 100,000-200,000 could support new construction on a cost-effective basis.

CDBG figures are not broken down in the official budget document but, according to HUD staff, the Administration's proposed budget is the same for FY 84 and '83: $1.019 billion. The Small Cities program will be administered by state governments in all but two to five states in 1983, and the Administration is proposing to make state administration mandatory in 1984, which is compatible with its overall proposal to fold CDBG into general revenue-sharing.

The Administration proposes the same $30 million rental rehabilitation block grant program it recommended last year to replace Section 312 and Section 8 moderate rehabilitation. It estimates that the proposed $150 million will support the rehabilitation of 30,000 units (i.e., at $5,000 a unit).

HUD INDIAN HOUSING PROPOSAL FOR FY 84

The FY84 HUD budget proposal includes funding for an Indian Housing initiative which will replace the current Public Housing method of assisting Indian families. HUD is proposing authorizing legislation to waive marketability criteria for FHA-insured mortgages, provide grants to write down the cost of constructing housing units (including costs of water and sewer infrastructure), and include housing payment certificates for assisting very low-income families. The Budget proposes an estimated:

$38.00	million for housing certificates for 15 years
$26.75	million for construction grants
$11.25	million for water and sewer
$76.00	million

The HUD Budget Summary estimates that approximately 100 tribes will be served with this proposal for 1500 units.

Details of the program proposal and authorizing legislation have not been made available. However, little is changed from HUD's draft proposal made available to Indian groups in November 1982.

In addition, HUD is including $75 million under the Community Development Block Grant Program for Indian Tribes with an additional legislative proposal to make housing construction an eligible activity under CD. Tribes would have the discretion at the local level to determine the extent to which funds are used for housing construction. However, it is anticipated that the additional funding proposal for Indians under CD would be used for assistance for housing construction in conjunction with the "Indian Housing Grants" program summarized above. The additional $44 million (for a total of $75 million under CDBG) will provide an estimated 1500 units, for a total of 3,000 units in the HUD FY84 program year. A description of how these two program proposals would be combined is not available at this time and no details are given under the CDBG program. However, in the HUD Budget Summary,* the following information is given on the "Indian Housing Grants" proposal.

*FY 1984 Budget, U.S. Department of Housing and Urban Development, Summary, January 1983.

Program Description. The consolidation of three elements into one program reflects a desire on the part of the Department to allow Indian tribes the flexibility necessary to meet their unique needs. The Indian Tribe would administer the program and could delegate responsibilities to the Indian Housing Authority (IHA). Funds would be allocated to each HUD Indian Field Office based on a "needs" formula. The distribution of funds by the HUD Indian Field Office would be based competitively on need, capacity, performance and other pertinent factors.

As part of this initiative, legislation will be sought to allow the use of Section 203(b) mortgage insurance to facilitate private investment for single family housing on Indian reservations. The availability of Section 203(b) mortgage insurance and grant "buy downs" will permit a wider spectrum of Indian families to afford homeownership financed in cooperation with the private sector. For eligible Indian families, the Tribe would be the mortgagor or co-mortgagor with a lease or lease purchase agreement with the participant family.

Indian tribes would have the flexibility to use the housing grant funds to write down the housing construction costs to a level at which the participating family's income would support the debt service and other housing costs. The portion of the housing cost not funded by the grant would be financed by a HUD-insured mortgage. The grants will also be used to fund the cost of water and sewer facilities for these units as well. This will eliminate many of the problems encountered under the present programs which arise from multiple funding sources.

Similarly, funding for housing certificates for Indian families will also be provided from the same appropriation account to assure maximum flexibility and efficiency. These additional subsidies will be provided to families whose income is so low that they could not afford the units even after the mortgage is reduced by the front-end write down. The certificate will be for a 15 year term and will be tied to the unit constructed, commensurate with the term of the FHA mortgage. The Indian tribe or housing authority would own and could administer the units it owned.

As with the 1982 proposal, there are several controversial points in this plan. Under the "Indian Housing Grants" proposal, tribes would get a housing block grant to "write down" housing construction costs. The remainder of the construction costs would be financed through an FHA insured mortgage. That means that not only would the remainder of the construction costs have to be financed by a bank making FHA insured mortgages in reservation areas, but loans also would be made at prevailing FHA rates plus origination and other fees to only eligible borrowers. If a default occurs, tribes would have to pay for defaults since the proposal makes the tribe the mortgagor or co-mortgagor. To date, FHA has not been a major lending or insurance source on reservations. In addition, tribes and individuals will have to negotiate long-term leases with a bank for construction on trust land. Waiving marketability criteria may or may not make much difference in bank lending policies if a reservation is not within its service area; nor does it enable small banks or savings and loans in rural areas to finance home mortgages if they do not have the resources.

The estimates for construction costs from HUD are down dramatically from the previous year's Indian housing construction costs. The latest draft proposal uses a cost figure of $35,000 per unit plus $7,500 for water and sewer for a total of $42,500 per unit. Assuming a house cost $42,500 (which is an extremely low estimate for areas such as Navajo reservations and Alaska) and 70% (HUD's figure) of its costs were written off, an eligible family would have to finance approximately $12,750 for 15 years at the current prevailing FHA insurance rate plus pay the FHA insurance premium, origination and other fees and insurance on the unit. Monthly payments for principal and interest alone would be $145 at 11% interest, or approximately $1,740 per year for 15 years.* Additional housing costs could bring the monthly payment up to $200 or more.

A recent article in the Washington Post gave the Navajo tribe's average annual per capita (note: not family) income at $1,700 with an unemployment rate of 72%. Since most Indian families are in similar economic straits, it is doubtful that many will be eligible even at this subsidized rate. However, HUD is lowering the cost by adding a payment certificate for very low-income families. HUD uses a figure of $2,200 per year as the average payment certificate amount.

Thus, if anyone can make FHA work on trust land, the HUD proposal is a rather generous grant to a few Indian households with some strings attached. For example, the provision of requiring the tribe to be mortgagor or co-mortgagor on the FHA-insured loans should raise the questions for tribes of how to guarantee payment in the event of a default and where to obtain the funds. No details on how the program would work are available.** Futhermore, the number of units an individual tribe would receive from an overall 1500-unit allocation would scarcely meet an already inadequate housing supply.

One of the statements made in the full budget document*** is that the new program initiative would "supplant the current mode of providing Indian Housing which relies on coordinating the efforts of the Departments of Housing and Urban Development, Health and Human Services, and Interior." However, it in fact does not eliminate coordinating efforts: The Department of Interior is the federal agency responsible for Indian "trust" land. Leases must receive BIA approval and roads to the housing projects are also constructed by the BIA.

Furthermore, water and sewer responsibilities will still have to be coordinated with the Indian Health Service (IHS) which has the overall responsibility for water and sanitation facilities (PL-86-212) on Indian land. To create separate facilities would be wasteful and more expensive than the current system. However, it is important to note that there are indications that OMB plans to phase out the IHS sanitation facilities program as well as the BIA's Housing Improvement Program. The IHS budget proposal, for example, zeroes out the program for the third time in three years.

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* The prevailing FHA interest rate would be used; a 15 year mortgage (as opposed to the usual 30 years) is generally one percent below that for the 30 year term.

** The National Rural Housing Coalition has completed an Analysis of the Indian Housing Amendments to the Housing and Community Development Act of 1983. It may be obtained from them at: 1016 16th St., N.W. Suite 8G, Washington, D.C. 20036.

***U.S. Office of Management and Budget, Budget of the United States Government, FY'84, Appendix, p. I-L4.

There are other troublesome questions. HUD is proposing a tribal program but never mentions the fate of the Indian Housing Authorities that HUD itself created. Will tribes be required to take over the IHAs? Again, no details are available from HUD. Will operating funds be available for tribes to develop and manage a block grant program? These are not clearly provided in the budget proposal. It is clear that, to be sensibly implemented, the proposal will require several legislative changes by Congress which are not mentioned in the proposal text.

To summarize, the proposed use of block grants for housing assistance is fraught with questions of feasibility; at best it would produce insufficient funds for the major construction effort vitally necessary to meet current need.

HHS - OFFICE OF COMMUNITY SERVICES (OCS)

The Office of Community Services (OCS) was established in October of 1981 within the Department of Health and Human Services to carry on the activities of the Community Services Administration (CSA) which had been eliminated by the Reagan Administration. It will continue, in fiscal year 1983, to administer the Community Services Block Grant program and, if the Administration's proposal is adopted, to oversee final closeout of past activities authorized under the Economic Opportunity Act of 1964.

The President's FY 1984 appropriations request includes no funding for the Community Services Block Grant program which, the Administration argues, duplicates other sources of federal funds including the Social Services Block Grant for which a $50 million increase is proposed. The request also does not include funds for the Secretary's discretionary fund, out of which rural housing groups, water and wastewater programs, migrant projects, etc. were funded in FY 1982. The only surviving program funded from last year's discretionary fund is National Youth Sports, which is proposed to receive $5.76 million under the Public Health Service Act.

The following chart states the Administration's intent.

COMMUNITY SERVICES BLOCK GRANT

	1983 Estimate Amount	1984 Estimate Amount	Increase or Decrease Amount
COMMUNITY SERVICES Block Grants:			
Community Services activities...	$348,000,000	---	-$348,000,000
Federal Administration	6,300,000	2,852,000	-3,448,000
ECONOMIC OPPORTUNITY Closeout:			
Community Services Closeout...	4,786,000	---	-4,786,000
TOTAL BUDGET authority.....	$359,086,000	$ 2,852,000	-$356,234,000

It should be noted that the proposed zero funding level ignores a Congressional authorization of $389.375 million authorization for the Community Services Block Grant in 1984.

The Community Services Block Grant program has two functions: (1) to provide block grants to states to ameliorate the causes of poverty in communities within the states and (2) to provide out of a discretionary fund for programs of regional and national significance designed to help poor persons. These include programs addressing areas of economic development, special rural and urban needs, migrant and seasonal farmworkers assistance and youth sports.

The 1983 estimate includes $316 million for block grants and $31 million for discretionary projects. Each state requesting funds under the block grant program must certify in its application that the state agrees to (1) provide a range of services and activities having a measurable and potentially major impact on causes of poverty in communities where poverty is an acute problem; and (2) provide activities designed to assist low-income participants, including the elderly. Funds totalling $314,450,427 were allocated in 1982 for 50 States and the District of Columbia, Puerto Rico, Guam, American Samoa, the Virgin Islands, the Northern Marianas and the Trust Territory of the Pacific Islands. Allocations were based on a percentage ratio of 1981 funding levels under Section 221 of the Economic Opportunity Act of 1964.

In 1982, OCS awarded 86 discretionary grants totalling $31,086,528 which included a $5,760,000 award to the National Collegiate Athletic Association for the youth sports program. Other categories of awards included urban and rural economic development, economic development demonstrations, rural community facilities, migrant and seasonal farmworkers and state agency assistance.

Current FY 1983 plans are to award block grants to states totalling $316,680,000. Discretionary programs will be funded at a total of $31,320,000 including $18,840,000 for community development, $2,880,000 for migrants and seasonal farmworkers assistance, and $5,760,000 for the National Youth Sports program.

It should be remembered that CSA's rural housing money mandated at $6 million by the earlier "Perkins Amendment", was cut in half in the transfer of OCS. This was essentially the only significant administrative fund available to national, regional or local nonprofit organizations working in rural areas, and while there was a legitimate concern on the part of rural housing organizations about the process and ranking system used by OCS, at least some rural housing programs did get funded.

The nonprofit delivery system will be in greater danger of elimination than ever as a result of the zeroing out of both the CSBG (through which many community action agencies and their spinoff organizations were funded) and the Secretary's discretionary program. It is clear that the Administration intends to eliminate the system of community-based organizations in both rural and urban areas. This is particularly devastating for rural areas where institutions and sources of assistance for low-income people are least often found.

REVENUE LOSSES FROM TAX EXPENDITURES, 1982-84.

The table (Table VII) below is drawn from a special analysis by the Treasury Department and the National Low-Income Housing Coalition. It shows the revenue losses resulting from housing-related provisions of the Internal Revenue Code. The bulk of these are homeowner deductions for mortgage interest and property taxes, which will have increased by 64% over a three year period if the estimates are right.

Note that the total cost of these tax subsidies in 1984 is estimated at over $40 billion--more than the highest level of assistance ever provided for low income housing.

In its analysis, the Treasury Department states: "The definition of tax expenditures used in this analysis is based on the distinction between the "normal" or "reference" provisions of the tax structure needed to make the tax operational and the "special" provisions that are exceptions to the referenced tax provisions. Such exceptions are designed to further other objectives, such as health care, export promotion or employment of the handicapped. Their operation is, therefore, comparable to outlay programs, such as milk price supports and rent subsidies that also provide a subsidy to particular activities. For this reason, the expression "tax subsidies" and "tax expenditures" are often used synonymously. Because the term "tax subsidies" is somewhat more descriptive than "tax expenditures," the former will be used in the remainder of this analysis." "Special Analysis G: Tax Expenditures," Special Analysis: Budget of the United States Government, Fiscal Year 1984, p. G-1.

The second table (Table VIII; also drawn up by the National Low-Income Housing Coalition) shows spending commitments in 1980 and proposals for 1984, in millions of dollars and as a share of the total budget. Also shown is the dollar and percent change between actual spending in 1980, before President Reagan took office, and the 1984 proposals. Note that low-income housing, which was about 4% of the federal budget in 1980, is negligible in 1984. The $27.4 billion in cuts is 11.4% of all the budget cuts made in the last two years.

TABLE VII

REVENUE LOSSES FROM TAX EXPENDITURES, 1982-84

REVENUE LOSSES FROM TAX EXPENDITURES, 1982-84
(In millions of dollars)

Description	1980	1981	FY 1982	FY 1983	FY 1984	Change 1983-84	% Change	Change 1980-84	% Chng 1980-84
Mortgage interest deductions	15615	20145	23305	25065	27945				
Property tax deductions	7310	9125	8360	8765	9535	2880	11.5	12330	79.0
Subtotal	22925	29270	31665	33830	37480	770	8.8	2225	30.4
Capital gains deferral	1010	1160	1625	1480	1740	3650	10.8	14555	63.5
Capital gains exclusion	535	450	585	535	630	260	17.6	730	72.3
						95	17.8	95	17.8
Residential energy credits									
Supply incentives	--	--	250	430	575				
Conservation incentives	--	--	220	125	25	145	33.7	575	--
Subtotal	485	575	470	555	600	-100	-80.0	--	--
						45	8.1	115	23.7
Tax exempt bonds									
Owner-occupied units	--	--	905	1110	1290				
Rental housing	--	--	395	530	710	180	16.2	--	--
Subtotal	447	1120	1300	1640	2000	180	34.0	--	--
						360	22.0	1553	347.4
Five-year rehab amortization	15	30	45	55	65				
Expensing of interest, etc	659	755	--	--	--	10	18.2	50	333.3
Excess depreciation	385	--	--	--	--	--	--	-659	-100.0
"All Savers" certificates	0	0	935	1665	320	--	--	-385	-100.0
Subtotal	1059	755	980	1720	385	-1345	-80.8	320	--
						-1335	-77.6	-674	-63.6
TOTAL	26461	33330	(36625	39760	42835	3075	7.7	16374	61.9

Source: Low Income Housing Information Service

TABLE VIII

UTHORITY, IN MILLIONS OF DOLLARS, 1977-84
OR FUNCTIONS AND SELECTED SUBFUNCTIONS AND PROGRAMS

TION, FUNCTION, OR OGRAM	1980 Actual	% Share	1984 Admin Proposal	% Share	Change 1980-84	% Change 1980-84
National Defense	145764	22.1	280503	31.2	134739	92.4
Dept of Defense Military	142621	21.6	273400	30.4	130779	91.7
International Affairs	15519	2.4	16813	1.9	1294	8.3
Foreign econ/finan asstc	7310	1.1	4868	0.5	-2442	-33.4
International security asstc	682	0.1	4692	0.5	4010	588.0
Genl Science, Space, Tech	6141	0.9	8451	0.9	2310	37.6
Gnl science/basic research	1461	0.2	1943	0.2	482	33.0
Space flight	2820	0.4	4049	0.4	1229	43.6
Energy	36447	5.5	2869	0.3	-33578	-92.1
Energy supply	36813	5.6	1992	0.2	-34821	-94.6
Energy conservation	736	0.1	74	0	-662	-89.9
Natural Resources/Environment	13051	2.0	8906	1.0	-4145	-31.8
Water resources	4157	0.6	3251	0.4	-906	-21.8
Conservation/land management	2586	0.4	2028	0.2	-558	-21.6
Recreational resources	1672	0.3	1202	0.1	-470	-28.1
Pollution control/abatement	4672	0.7	3631	0.4	-1041	-22.3
Agriculture	4945	0.8	13484	1.5	8539	172.7
Farm income stabilization	3637	0.6	11839	1.3	8202	225.5
Agricultural research/service	1402	0.2	1647	0.2	245	17.5
Commerce & Housing Credit	10497	1.6	7556	0.8	-2941	-28.0
Mortgage credit/thrift ins	6481	1.0	5694	0.6	-787	-12.1
GNMA mortgage purchases	1869	0.3	1	0	-1868	-99.9
FHA mortgage credit	324	0	127	0	-197	-60.8
Hsg for elderly/handicapped	806	0.1	436	0	-370	-45.9
FmHA rural housing	2282	0.3	1508	0.2	-774	-33.9
FmHA accounting change	—	—	3556	0.4	—	—
Natl Credit Union Admin	1200	0.2	66	0	-1134	-94.5
Postal Service	1677	0.3	400	0	-1277	-76.1
Other commerce	2340	0.4	1464	0.5	-876	-37.4
Transportation	20210	3.1	27780	3.1	7570	37.5
Ground transportation	14019	2.1	19062	2.1	5043	36.0
Highway system	9177	1.4	13891	1.5	4714	51.4
Mass transit	2565	0.4	3967	0.4	1402	54.7
Railroads	2198	0.3	889	0.1	-1309	-59.6
Air transportation	3954	0.6	5692	0.6	1738	44.0
Water transportation	2199	0.3	2995	0.3	796	36.2
Community/regional development	10110	1.5	6071	0.7	-4039	-40.0
Community development	4927	0.7	4200	0.5	-727	-14.8
Community devel block grants	3752	0.6	3500	0.4	-252	-6.7
Urban devel action grants	675	0.1	196	0	-479	-71.0
Rental rehab grants (proposed)	110	0	150	0	40	36.4
Urban homesteading	—	0	12	0	—	—
Other programs	390	0.1	368	0	-22	-5.6
Area/regional development	2790	0.4	1777	0.2	-1013	-36.3
Rural development	647	0.1	890	0.1	243	37.6
Econ devel asstc	553	0.1	18	0	-535	-96.7
Indian programs	1183	0.2	1080	0.1	-103	-8.7
Disaster relief/insurance	2426	0.4	128	0	-2298	-94.7

EXHIBIT B.

FARMERS HOME ADMINISTRATION
Loans and Grants by Program — All-Time Total
through September 30, 1982

	Number of Loans or Grants	Dollar Amount
FARMER PROGRAMS:		
Farm Operating Loans	2,324,410	$ 12,493,540,005
Farm Ownership Loans	377,308	9,431,497,628
Recreation Loans (Individual)	463	20,527,880
Emergency Loans	1,175,686	20,571,261,614
Economic Emergency Loans	121,000	6,628,618,280
Grazing Association Loans	605	129,419,696
Soil and Water Loans (Individual)	41,370	456,461,692
Irrigation and Drainage Loans	610	32,240,909
Indian Land Acquisition Loans	75	83,801,800
Farmer Programs, Total	4,041,527	$ 49,847,369,504
RURAL HOUSING PROGRAMS:		
Individual Housing Loans	1,722,923	$ 30,528,507,136
Very Low Income Repair Grants	43,474	101,544,077
Rural Rental Housing Loans	15,565	5,999,848,120
Rental Asst. Program:		
Rental Housing (90,100 Units)	-	1,873,248,746
Labor Housing (4,458 Units)	-	92,520,075
Farm Labor Housing Loans	1,530	166,326,660
Farm Labor Housing Grants	230	144,821,960
Site Loans	168	22,722,090
Self-Help Housing Grants	378	60,962,595
Rural Housing Supervisory Assistance Grants	57	5,000,000
Housing Programs, Total	1,784,298	$ 38,995,501,459
COMMUNITY PROGRAMS:		
Water and Waste Disposal Loans	24,647	$ 7,596,694,844
Water and Waste Disposal Grants	11,712	2,230,905,096
Community Facility Loans	4,193	1,822,991,970
Industrial Development Grants	1,367	83,549,279
Watershed and Flood Prevention Loans	482	172,552,524
Resource Conservation and Development Loans	283	27,675,409
Rural Development Planning Grants (ADA)	605	19,000,000
Development Grants Other than FmHA	1,882	279,761,615
Community Programs, Total	45,171	$ 12,251,130,737
BUSINESS & INDUSTRY PROGRAMS:		
Guaranteed Business/Industrial Loans	6,878	$ 5,407,870,914
Business/Industry Programs, Total	6,878	$ 5,407,870,914
DISCONTINUED PROGRAMS:		
Emergency Livestock Loans	7,738	$ 1,045,660,130
State Corporation Farm Operating Loans	185,904	158,964,394
Rural Rehabilitation Loans	3,031,331	1,015,825,965
Economic Opportunity Loans (indiv.)	64,660	109,394,912
Economic Opportunity Loans (assn.)	1,476	21,107,481
*Recreation Association Loans	1,035	110,510,460
Rural Renewal Loans	56	6,550,300
Water Facility Loans (indiv.)	18,296	29,695,363
Water/Sewer Comprehensive Planning Grants	1,834	22,293,387
Bureau of Reclamation, Soil and Water Loans	283	4,935,550
Land Conservation and Development Loans	274	267,900
Special Impact Grants	2	2,700,000
State Corporation Farm Ownership Loans, Agricultural Credit Corporation Loans, Resettlement Projects, Water Utilization and Construction Loans	(number not available)	89,800,000
Total Discontinued	3,312,889	$ 2,617,705,842
GRAND TOTALS —	9,109,763	$109,119,578,456

* Recreation Assn. Loans included in Community Facility Loans since 1974.

EXHIBIT C.

U.S. DEPARTMENT OF AGRICULTURE
FARMERS HOME ADMINISTRATION

Loans and Grants by Program -- Fiscal Year 1982

	Number of Loans or Grants	Dollar Amount
FARMER PROGRAMS:		
Farm Operating Loans.........................	44,919	$ 1,251,008,799
Farm Ownership Loans.........................	10,230	661,603,338
Recreation Loans (Individual)................	9	711,750
Emergency Loans..............................	42,863	2,173,412,200
Soil and Water Loans (Individual)............	1,379	24,776,940
Irrigation and Drainage Loans................	4	1,313,000
Indian Land Acquisition Loans................	2	1,037,400
Farmer Programs, Total.........	99,406	$ 4,113,863,427
RURAL HOUSING PROGRAMS:		
Low-Moderate Income Housing Loans............	80,449	$ 2,478,218,964
Very-Low-Income Repair Loans.................	3,165	10,043,550
Very-Low-Income Repair Grants................	4,205	13,605,183
Rural Rental Housing Loans...................	1,428	953,667,720
Rental Asst. Program:		
Rental Housing........... (13,570 Units)..	-	356,256,312
Labor Housing................(710 Units)..	-	41,741,568
Farm Labor Housing Loans.....................	135	11,910,600
Farm Labor Housing Grants....................	15	14,948,400
Site Loans...................................	3	384,000
Self-Help Housing Grants.....................	30	5,151,764
Housing Programs, Total........	89,430	$ 3,885,928,061
COMMUNITY PROGRAMS:		
Water and Waste Disposal Dev. Loans..........	928	$ 375,000,000
Water and Waste Disposal Dev. Grants.........	444	133,812,889
Development Grants Other Than FmHA...........	90	16,409,224
Community Facility Loans.....................	267	126,191,250
Watershed and Flood Prevention Loans.........	2	1,050,000
Resource Conservation and Development Loans....	4	885,000
Community Programs, Total	1,735	$ 653,348,363
BUSINESS & INDUSTRY PROGRAMS:		
Business & Industrial Loans..................	69	$ 61,177,575
Alchol Fuel Conversion Loans.................	5	63,900,000
Business/Industry Programs, Total	74	$ 125,077,575
FmHA PROGRAM TOTALS:		
Loans..	185,861	$ 8,196,292,086
Grants (FmHA)................................	4,694	565,516,116
Other Than FmHA Grants.......................	90	16,409,224
FmHA Program Total.............	190,645	$ 8,778,217,426

NOTE: All guaranteed loans based on guarantee rates.

EXHIBIT D.

TARGETING FmHA PROGRAMS THROUGH RURAL RENTAL ASSISTANCE

BY ART COLLINGS

The ability of FmHA to use its Section 515 Rural Rental (or Rural Cooperative) housing program to serve lower income families and persons is directly related to available subsidy. While the percentage of income which low income people can afford to pay for housing does vary, regardless of the fixed numbers ascribed by law, few can attain any level of affordability without subsidy assistance. Consequently, the FmHA Section 515 program, if operated without subsidy beyond interest subsidy, will only house tenants on the upper end of the low income scale. Without rental assistance or similar subsidy all of the pronouncements about serving the rural poor, made by Administration and Congress alike, are meaningless.

In this brief paper I propose to do several things: (1) examine a few recent Section 515 projects, their rent, and affordability at different percentages of income; (2) look at tenant income and rent payment affordability in respect to other essential costs; and (3) project the amount of rental assistance necessary to target Section 515 at varying degrees during fiscal year 1984.

Income Requirements For Section 515 Projects

Below are basic data for five FmHA Section 515 projects applied for, constructed, rented up, or approved during 1982. They may not be widely representative, but do present reasonably accurate rental information. Each rent shown is FmHA basic rent, that is derived through mortgage amortization for 50 years at one percent interest. In each instance I have projected affordability at both 25 percent and 30 percent of income. The former (25%) is the percentage used by FmHA under Section 521 of Title V of the Housing Act of 1949. The latter (30%) is the percentage proposed by the Administration as an amendment to that law.

1. Lowville, New York (Lewis County)

30 Unit elderly project
All 1 bedroom
$933,000 cost
Rents - $235 including utilities (45)
Minimum Income @ 25%* for shelter = $ 11,280**
Minimum Income @ 30% for shelter = $ 9,400**

In Lewis County 10% of population have incomes below $6,106 and 20% below $11,183

2. Indiana, Pennsylvania (Indiana County)

15 unit project
2 and 3 bedrooms
$600,000 cost
Rents 2 Br = $273 including utilities (73)
3 Br = $318 including utilities (83)

Minimum Incomes:

2 Br @ 24%* for shelter = $ 13,104
2 Br @ 30% for shelter = 10,920
3 Br @ 25% for shelter = 15,264
3 Br @ 30% for shelter = 12,720

In Indiana County 10% of population have incomes below $6,409, 20% below $10,607 and 30% below $13,891

3. Manila, Arkansas (Mississippi County)

25 unit project
1, 2, 3 and 4 bedrooms
$826,600 cost
Rents - 1 Br = $ 199 including utilities (20)
2 Br = 247 including utilities (30)
3 Br = 295 including utilities (40)
4 Br = 353 including utilities (50)

Minimum Incomes:

1 Br @ 25%* for shelter = $ 9,552
1 Br @ 30% for shelter = 7,960
2 Br @ 25%* for shelter = 11,856
2 Br @ 30% for shelter = 9,880
3 Br @ 25%* for shelter = 14,160
3 Br @ 30% for shelter = 11,800
4 Br @ 25%* for shelter = 16,944
4 Br @ 30% for shelter = 14,120

In Mississippi County, 10% of population have incomes below $2,804 - 20% below $5,612, 30% below $8,454 and 40% below $11,353

4. Windsor, California (Sonoma County)

46 unit project
all 1 bedroom elderly
$1,578,950 cost
Rents - $262 including utilities (32)
minimum income @ 25% for shelter = $ 12,576**
minimum income @ 30% for shelter = $ 10,480**

5. Placerville, California (El Dorado County)

42 unit project
1, 2 and 3 bedrooms
$ 1,584,000 cost

Rents - 1 Br = $240 including utilities (30)
2 Br = $290 including utilities (39)
3 Br = $339 including utilities (48)

Minimum Incomes:

1 Br @ 25%* for shelter = $ 11,520
1 Br @ 30% for shelter = $ 9,600
2 Br @ 25%* for shelter = $ 13,920
2 Br @ 30% for shelter = $ 11,600
3 Br @ 25%* for shelter = $ 16,272
3 Br @ 30% for shelter = $ 13,560

In El Dorado County 10% of population have incomes below $5,492 and 20% below $8,789.

* FmHA regulations currently base the need for subsidy on payment of 25% of adjusted income for principal, interest, insurance utilities and maintenance (PITIUM). PITIUM is embodied in 515 rents, including utilities. The percent of population income data are based on gross income. This means that higher incomes are actually required than the minimum (adjusted) figures shown for each project.

**These incomes are not representative of average low income elderly residents. Those depending primarily on Social Security have annual earnings averaging from $4,200 to $7,000.

There are eligible populations who can probably afford rentals in each of the projects with the exception of that in Manilla, Arkansas. However, those most in need of housing, that is living in substandard housing, are most apt to be in the lower 10-20 percentiles of income. In Mississippi County, Arkansas the maximum low income (adjusted) eligible for FmHA assistance is $11,500.

Tenant Payments as a Percentage of Income

The ability to pay a given percentage of income for shelter costs increases as incomes rise. The cost of other living necessities impacts directly on a family's ability to pay for shelter. The use of 25 percent of income was used over a long period of time as a rule of thumb, and federal eligibility criteria, for determining shelter payment capability among lower income people. The 1974 Housing Act revised this to lower shelter payment to 15 percent for those at or below 50 percent of median income for the Section 8 program. Subsequently, in response to increasing subsidy costs, Congress has moved some of the federally subsidized housing requirements to a 30 percent of income criteria. I submit that in each case there are income-cost relationship which make these determinations unrealistic, and, in the case of very low income tenants, HARSH.

During FY 1982 FmHA developed some basic categorical cost of living indices for a family of four. I have used these to determine what percent of income a typical low income family can actually afford. The reader should be aware that national averages are used and there are fluctuations in typical costs, from state to state. However, these data are sufficient to make the point which is that no one arbitrary percentage of income factor can be assessed fairly to all income groups. Some can only pay less, others can afford more.

The table which follows is for gross earnings of families of four with adjusted incomes of $8,000 - $20,000.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	$ 8,000	$10,000	$12,000	$14,000	$16,000	$18,000	$20,000
Earne Inc	9,053	11,518	13,264	15,368	17,474	19,579	21,684
Supp. Ben	1,010	416	-0-	-0-	-0-	-0-	-0-
Gross	10,063	11,574	13,264	15,368	17,474	19,574	21,684
Total Taxes (not R.E.)	1,321	2,048	2,623	3,283	3,869	4,485	5,098
Food	3,975	3,975	3,975	3,975	4,358	4,742	5,125
Transportation	1,368	1,368	1,368	1,652	1,932	2,214	2,496
Other	1,884	1,584	1,584	1,584	1,584	1,584	1,584
Total Expenses.	8,248	$ 8,975	$9,550	$10,494	$11,743	$13,025	$14,303
Balance Available	$1,815	$ 2,599	$3,714	$ 4,874	$ 5,731	$ 6,554	$ 7,381
Percentage of Gross Income Available	18%	22.5%	28%	31%	32.7%	33.5%	34%

1980 U.S. median family income was $19,908. Seventy percent of this is $13,936, which figure compares favorably to the affordable percentage in column (4).

Those most in need will most likely be in the $8,000 $10,000 or less than $8,000 category. The $1,815 available for shelter at $8,000 income is insufficient for any of the 5 projects examined in this paper. The $2,599 available at $10,000 income will only rent a one bedroom unit in Manila Arkansas. It is quite apparent that without rental assistance low-income tenants must pay higher percentages of income for shelter and substantially cut back on other expenditures. Even at 25% of income for shelter, attained through the use of rental assistance, lower income tenants must also cut back on other costs.

Targeting the Section 515 Rural Rental Housing Program

By law, FmHA must use, to the extent practicable, 30 percent of all rural housing funds to serve those at or below 50 percent of area median income. During FY 1982 the largest program, Section 502, used only 15.1 percent of obligated dollars (15.8% of units) for the targeted populations. The only major program capable of offsetting this performance is Section 515, which can't do any more without deeper subsidy (rental assistance or Section 8). The data below are estimates based for Fiscal Year 1983 appropriation levels. The first table provides anticipated basic levels of targeting. It assumes (a) Section 515 cannot target without rental assistance. The second table reflects targeting at varying levels of rental assistance. Rental assistance is calculated at $10,535 per unit for 5 year contract.

I - Basic Data

PROGRAM	DOLLARS	UNITS	TARGETED PERCENTAGE	TARGETED UNITS
Sec. 502 Sub & Unsub	$2,300,000,000	53,700	15.8%	8,485
Sec. 504 loans & Grants	36,500,000	10,238	84.9%	8,692
Sec. 514/516 FLH	31,500,000	821	100.0%	821
Sec. 515 RRH	940,000,000	27,434	16.0%	4,400
TOTALS	$3,308,000,000	92,193	24.3%	22,398

II - 515 With Rental Assistance (hypothetical cases)

TOTAL UNITS	RENTAL ASSISTANCE (b) DOLLARS	R.A. UNITS	515 TARGETED PERCENTAGE	TOTAL TARGETED PERCENTAGE
27,434	$ 50,000,000	4,746	17.3%	23.3%
27,434	100,000,000	9,492	34.6%	27.9%
27,434	150,000,000	14,238	51.9%	32.4%
27,434	200,000,000	18,984	69.2%	37.0%

(a) Management costs, etc. produce basic rentals that are seldom affordable by those at or below 50% of area median income.

(b) Represents an amount beyond the minimum of $73,750,000 necessary for renewals in FY 1983.

The Cost of Rental Assistance

I have used the $10,535 1982 FmHA budget estimate for 5 year contracts as the cost for the rental assistance program. There is a revised estimate for 1982 at $8,580. Below are comparison costs using $8,580, $10,535 and a $9,558 average of the two. By first determining unit levels of R.A. we can examine 5 year contract cost.

FIVE YEAR CONTRACTS

NUMBER OF UNITS	COST @ $10,535	COST @ $9,558	COST @ $8,500
1- Annual cost per unit	$ 2,107	$ 1,921	$ 1,716
2- Total Cost by No. of units			
4,746	49,999,110	45,362,268	40,720,680
9,492	99,998,220	90,724,536	81,441,360
14,238	149,997,330	136,086,804	122,162,040
18,984	$199,996,440	$181,449,072	$162,882,720
3- Addition for 7,000 renewals	$ 73,745,000	$ 66,906,000	$ 60,060,000

Five year rental assistance contracts appear to be the most economic way to handle the program. In addition to the lower annual cost, more units can be generated from a given appropriation. While five years offers less protection for the tenant, use of longer term is outweighted by overwhelming budget considerations.

CONTRACT TERM IN YEARS	ESTIMATED COST PER UNIT	ESTIMATED ANNUAL COST PER UNIT
5	$ 10,535	$ 2,107
10	$ 27,540	$ 2,754
15	$ 54,900	$ 3,660
20	$ 85,750	$ 4,288

CONCLUSIONS

In 1979 there were 1,970,008 rural, occupied substandard housing units. 1,032,843 of these or 54.2% were occupied by households with incomes of $10,000 or less and 867,957 94 (45.5%) with incomes of $8,000 or less. These data do not take into account non existant seasonal housing for farmworkers (needs). At a rate of 92,193 units per year, and FmHA's annual unit production is on a steady decline, it will take at least 21.4 years to eliminate substandard housing. However, even at this rate, if FmHA only uses 30% of its funds for very low income people it will take at least 31.4 years to house the 867,957 with incomes at $8,000 or less.

The Administration has proposed only to fund rental assistance for 6,000 renewal units in FY 1984 ($62,000,000). This essentially eliminates any meaningful targeting through the

Section 515 program. It also means that at best, it will take 48.2 years to assist those with incomes at or below $8,000 and who are living in substandard housing. It also means that available 515 funds may well go unused. A California Rural Housing Coalition member, interviewing that state's FmHA Rural Housing Chief was told; (1) the pipeline is limited (without rental assistance), (2) all of their 515 allocation may not be utilized, and (3) only projects for higher income people will be approvable.

A most appropriate approach to this problem would be an appropriation of $398,000,000, which is the 1982 level of Rental Assistance. It's use might be envisioned for five year contracts as follows:

(1) $62,000,000 for 6,000 renewal units, as per the budget request

(2) $171,172,680 for 16,248 units in existing projects. FmHA staff estimate there are 17,931 burdened households living in FmHA rental units in projects with Rental Assistance. Another 145, 886 units are in projects without R.A. 205 units of R.A. are needed to sell a like number of Section 515 units now in inventory.

(3) 164,807,320 for 15,645 units in new Section 515 and Section 515/516 farm labor housing units.

Without this, or similar action, targeting in the FmHA rental programs will remain unattainable.

There is no more serious rural housing need and issue than rental assistance.

WATER AND WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION, INC.

STATEMENT OF JOHN HARRIGER, CHAIRMAN-ELECT

Senator COCHRAN. Our next witness is Mr. John Harriger, chairman-elect of the Water and Wastewater Equipment Manufacturers Association.

Mr. HARRIGER. Our testimony is quite brief, so if you permit, I will read the 2½ pages.

Senator COCHRAN. Fine.

Mr. HARRIGER. I am John Harriger, chairman-elect of the Water and Wastewater Equipment Manufacturers Association, and I am vice president of the municipal and utilities Division of Rockwell International. I am pleased to have the opportunity to offer the views of WWEMA, our organization, regarding appropriations for the water and waste disposal loans and grants program under the Farmers Home Administration.

WWEMA is an association of over 120 major corporations that develop technology, and manufacture and sell equipment, materials, and services to the water and wastewater industry. Traditionally, over the years, suppliers of water and wastewater equipment invested in new and enlarged manufacturing facilities. As a result, new and more cost-effective technology has become available.

WATER AND WASTEWATER PROGRAMS

The projected needs of water and wastewater facilities for the Nation's population in the year 2000 are estimated to be $230 billion in 1982 dollars. The attached summarizes some of the major issues facing this Nation's water supply. The Farmers Home Administration has done an outstanding job in providing financial assistance for water and waste disposal facilities in rural areas and towns. The successful management of this program is reflected in a delinquency rate of only 2 percent during 1982. Continuation of this service is vital in meeting the overall needs of this Nation to insure a safe environment for future generations. It is more essential today than ever before that measures be taken to assure rural water supply treatment, because so many of our groundwater sources are currently threatened by an estimated 51,000 hazardous waste disposal sites which presently exist in the United States.

A recent General Accounting Office report refers to drinking water contamination as "one of the most serious health and environmental problems facing the Nation" during the 1980's. The Environmental Protection Agency estimates that 13,600, or 21 percent, of our present water supply systems do not meet current drinking water standards, and basically those are small units or small community areas.

The Farmers Home Administration's water and waste disposal loans and grants program has experienced major budget reductions over the past few years. Funding has dropped from $960 million in fiscal 1981 to a total of $340 million in the administration's fiscal 1984 budget request—a 64-percent decrease in funding.

Some additional information not included in our testimony came to our attention as recently as last Friday. Action taken by Secretary of Agriculture Block on April 15 transferred a total of $300 million from the FmHA water and wastewater disposal loans and grants program to meet the needs of farmers at the start of the planting season. With the loss of $300 million, moneys authorized in the recently passed jobs legislation will have to be used to sustain the program if the fiscal year 1984 appropriations are approved. Congress was aware of the critical needs existing in this program and, specifically, earmarked funds in the jobs legislation to provide financial assistance for water and wastewater disposal facilities in rural areas. Any stimulus once intended for the program has been removed. The administration has once again requested the reduction in fiscal 1984 for funding for the program—only $250 million for loans and $900 million for grants, which equals a 29-percent reduction from the fiscal 1983 level.

SPECIFIC BUDGET REQUESTS

This request comes in light of the fact that as of March 1, 1983, there were 2,492 applications pending review under this program, totaling $1,624,774,087. Due to increased needs of America's rural communities, WWEMA urges the Congress to maintain a level of funding at least equal to the 1983 appropriation of $375 million for loans and $125 million for grants. If public entities entitled to grants and loans under FmHA are to safeguard against further health and environmental problems, it is essential that further reductions in the program not be approved by the Congress. As you are aware, the public entities entitled to grants and loans from FmHA are unable to obtain needed funds from other sources at reasonable rates and terms. Continued support at the current funding levels is a minimum requirement if smaller communities are to maintain a healthy and productive standard of living.

EMPLOYMENT OPPORTUNITIES

Another important issue that cannot be overlooked is what the program means to employment. While the unemployment rate for all workers remains above the 10-percent level, the rate of unemployment in the water and wastewater construction industry nationwide is in the area of 30 percent. Data compiled by the Bureau of Labor Statistics estimates a total of 52,000 jobs are generated for every $1 billion spent on public works projects. This figure includes actual onsite construction jobs which, in turn, create an equal number of offsite jobs in related industries, such as material supply and manufacturing, and additional jobs in other unrelated industries.

Further reductions in the program will cause manufacturers to reduce staff or withdraw from the business. This rapid turnover of equipment suppliers leads to reduced equipment quality, less technical innovation and fewer available services for clean water progress.

WWEMA believes that with the Congress, FmHA and industry working together, we will be able to satisfy the needs of the Nation in the future, with improved water quality at a price that is consistent with the benefits.

That concludes my comments, and I would like to thank you, Mr. Chairman, for the opportunity to present our views.

Senator COCHRAN. Thank you very much, Mr. Harriger. We appreciate your being here. I want to compliment you on the statement that you have submitted and made available to the committee.

Since you read your statement, we will not print it in the record; however, the attachment to your statement will be included.

[The attachment follows:]

WATER—A VALUABLE NATURAL RESOURCE

Unless some direction is given and action is taken, our next national crisis will be an inadequate supply of water for our human needs.

The following are considered to be key issues:

There is no individual Federal agency or department that has total responsibility for a national water policy.

Individual State control and State standards can have a social and economic effect on adjoining States.

There has been limited success of a group of States forming a common interest group to solve present or future water problems.

Accountability for water usage has not been a uniform practice.

Eighty percent of the Nation's fresh water supply is consumed in the irrigation area at a very low cost per gallon level. A large percentage of the irrigation processes are inefficient.

There are estimated to be 40,000 producing water wells that have no accountability for the water pumped.

Consumption from several large underground aquifers is at a greater rate than it is being replenished. This has caused surface subsidence to occur from a minimum of several feet up to 30 feet in the San Joaquin Valley in California.

From water utility data, it is estimated that 5 to 7 percent of water consumed for residential use is not metered. This includes several large cities, such as Denver and New York City.

There are many water utilities that have not maintained the integrity of their water systems. It is estimated that there are at least 15 million meters that are inaccurate, and accountability for water becomes impossible.

A report from the United States General Accounting Office, CED-81-17, November 24, 1980, indicates a high unaccounted water loss in several major cities because of water leaks in their systems.

The political structure within a municipal system has prevented water rate increases that are needed to generate revenue for proper maintenance of their system.

CONTINUING THE PROGRAMS

Senator COCHRAN. I think that we do have to be very careful about approving any reduction of funding in this area. This is a very important area for maintaining the quality of life and standard of living out in rural areas. That would not be possible were it not for the programs that you are discussing with us this morning. I think the consensus of the committee is to continue the programs and make sure they are administered in a way that helps meet these needs. We also recognize we do have to have strong participation in the private sector. That is what your group is all about—getting involved in trying to play an important role in this effort as well. We compliment you for that, and thank you for being a witness before our committee today.

Mr. HARRIGER. Thank you, sir.

NATIONAL RURAL HOUSING COALITION

STATEMENT OF ROBERT A. RAPOZA, LEGISLATIVE DIRECTOR

Senator COCHRAN. Our next witness is Mr. Robert A. Rapoza, Legislative Director of the National Rural Housing Coalition.

Welcome to the committee.

Mr. RAPOZA. Thank you, Mr. Chairman. Thank you for the opportunity to be here today.

We have a prepared statement for the record, and I would like to briefly summarize for you now through oral presentation.

Senator COCHRAN. Yes, your entire statement will be included in the record, with the tables and accompanying materials that you submitted, and we thank you for that.

Mr. RAPOZA. Thank you.

[The statement follows:]

STATEMENT OF ROBERT A. RAPOZA

Mr. Chairman, my name is Robert Rapoza and I am the Legislative Director of the National Rural Housing Coalition (NRHC), a private, nonprofit organization which advocates for decent housing for rural low income Americans. On behalf of our membership I want to thank you for the opportunity to appear before you today.

I am here today to express our deep concern about the Administration's FY84 budget request for the rural housing and water/waste disposal programs of the Farmers Home Administration (FmHA). The Administration has proposed nearly the same budget cuts and program changes as last year, despite Congress's strong support for rural housing and development in reauthorizing the programs for fiscal 1983.

RURAL HOUSING NEED

The past decade has shown a decline in the incidence of substandard housing in rural areas. According to the Housing Assistance Council (HAC), during the period 1970 to 1980 substandard housing in rural areas (places below 2,500 population) dropped by 42% to 1.67 million units. In the FmHA service area, there are now almost 2 million units of occupied substandard housing. In Mississippi about 78,000 households occupy bad housing. (Tables 1 and 2.)

Overall, rural areas still have about one third of the nation's bad housing. Well over half of this housing is occupied by people with annual incomes below $10,000. Further, most of the nonmetro units lacking plumbing are occupied by households with incomes below the poverty level; 61% of the nonmetro households lacking adequate plumbing have annual incomes no higher than $7,000.

Most distressingly, HAC estimates that in 1970 800,000 households with incomes below the poverty level occupied substandard housing; that figure is essentially the same in 1980. The decline in substandard housing in rural areas has left the poor substantially untouched.

RURAL HOUSING BLOCK GRANT

NRHC recommends no funding for the proposed rural housing block grant. The rural housing block grant would provide little in the way of meaningful assistance to rural people who need housing. The block grant is deficient because:

- Rural areas need the credit provided by FmHA. In FY83 FmHA will provide about $3.4 billion in housing credit and related assistance to rural America. (Table 3.) The block grant would provide $850 million for distribution by the states. Rural areas continue to be credit poor; FmHA assistance is vital.

- Rural areas need the units financed by FmHA. In FY82 FmHA financed about 90,000 units of housing for low and moderate income rural people. The Administration has yet to provide any estimate of the number of units to be developed under the block grant.

- Rural areas need the delivery system provided by FmHA. Approval of the block grant will result in the closing or consolidation of local offices as the FmHA housing program is terminated and responsibility is transferred to the states. The FmHA presence in local areas will be reduced.

There is little to recommend the budget or block grant proposals of this Administration. NRHC urges the committee to continue appropriations for current FmHA housing programs.

APPROPRIATION LEVELS

From fiscal year 1980 to 1983, funding levels for FmHA rural housing and water and waste disposal programs have been reduced by over $1 billion. (Table 4.) Almost half of this reduction has been in programs directed at very low income people.

	Actual FY80	Actual FY81	Actual FY82	Estimated FY 83	% Chg. 1980-1983	Admin. Budget FY 84	% Chg. 1983-1984
Total FmHA Rural Housing Units	132,360	113,069	100,181	93,615	-29.3%	3,038	-96.8%
Total FmHA Rural Housing Dollars (in millions)	$4,219.5	$3,941.0	$3,883.6	$3,446.2	-18.3%	$1,216.4	-64.7%

Beyond the reductions in programs targeted at low income people, FmHA programs serving low and moderate income people have been held at about the same level since FY80; as a result, unit production has fallen by about 30%.

The Section 502 homeownership program, with borrowers with average annual incomes of about $11,000, financed 62,739 units in 1980. The projected production for 1983 is 53,700 units. The Section 515 rural rental finance program for families and elderly with incomes of about $11,000 financed 30,980 units in 1980. The projected production for 1983 is 27,435 units.

The HAC analysis of rural housing data indicates, we believe, a need for programs aimed at assistance to the very low income. The Coalition strongly supports improved targeting of existing rural housing programs, creation of a new program to provide major rehabilitation assistance to very low income people, and expansion and better targeting of the FmHA water and waste disposal loan and grant program.

Table 5 provides the NRHC recommendations for FY84. We recognize that the Budget Committee establishes overall levels for programs. Within the limits established by the Committee, we urge the following levels for selected programs:

NRHC recommends a level of $450 million for rental assistance contracts. Less than half the units financed by the FmHA rural rental housing program provide a deep subsidy through the rental assistance program; of 276,000 units, over 145,000 have residents paying in excess of 25% of adjusted family income or residents who are not low income.

In fiscal year 1984, FmHA will need about $62 million to extend existing contracts for about 6,000 units for 5 years. NRHC recommends that the remaining funds for rental assistance be employed to provide assistance in the following fashion:

	Units	Cost (millions of $)
- renewal of existing contracts	6,000	$62
- extension of subsidy to low income households living in projects with some units with rental assistance	16,248	$172
- newly constructed rental housing (including farm labor housing of 1,230)	20,500	$216
	42,748	$450

The tandem subsidy of Section 515 (for construction finance) and rental assistance (for subsidy to low income people) compares favorably to other similar subsidy programs, including the HUD Section 202 - 8 subsidy. The per unit cost per year of the HUD program is $6,802. The FmHA program cost for 1983 is $4,638 per unit per year. (Table 6.)

NRHC recommends $50 million for loans and grants for housing for migrant and seasonal farmworkers. Farmworkers continue to be the worst housed and poorest of all rural people. Overall unmet need for housing for just migrant and seasonal farmworkers is over 1 million units. (Table 7.) An appropriation of $50 million for Section 514/516 financing for migrant and seasonal farmworker housing will provide approximately 1,230 units.

NRHC recommends $15 million for self help housing technical assistance grants. By assisting families in constructing their own homes, FmHA technical assistance grants save families about $10,000 of the cost of a contractor-built Section 502 house. The average cost to the government for the technical assistance contractor is less than $5,000, so there is a net savings to the government of a little over $5,000. Currently, over 100 public and private nonprofit organizations operate self help technical assistance programs. To continue the programs and extend the opportunity for lower cost housing to low income individuals an appropriation of $15 million will be necessary.

NRHC recommends an appropriation of $250 million for the Rural Housing Preservation Grant Program. Over 850,000 units of occupied rural substandard housing are occupied by households with incomes below the poverty line. The Preservation Program, working through local governments and nonprofit organizations, is targeted to those households to provide them with rehabilitation assistance, both in single family and rental units.

NRHC recommends $500 million for loans and $300 million in grants for rural water and waste disposal. Since FY81, the amount of assistance available to rural communities has declined precipitously. The roughly 50% cut in program levels for FmHA water-sewer assistance, compounded by cuts in other programs that formerly addressed similar needs, has produced a backlog of formal funding requests equal to more than five years of appropriations at current levels. Making fair and equitable decisions of which communities should receive the limited assistance available has become an urgent matter.

At the same time, the interest rate for most FmHA water-sewer loans has doubled from a flat 5% for all communities to 10% for most communities. A few communities qualify for an intermediate rate of over 7%. Moreover, since January 12 of this year, most communities have been restricted by FmHA regulation from receiving critical grant assistance. What little assistance FmHA has is simply unaffordable for many small towns that need help the worst. Changes in the law are needed to meet current conditions.

Consequently, on March 10, 1983, the House Agriculture Committee voted unanimously to amend H.R. 1190 (Emergency Agriculture Act of 1983) to include the following provisions:

1. A graduated set of interest rates with higher income ceiling for interest rate reductions. The amendment provides a graduated set of interest rates, with a 5% rate for all communities whose income is less than 80% of the state non-metropolitan median and which have health problems caused by inadequate water supply or wastewater collection and treatment facilities. Further, a rate of not more than 7% would be established for other communities whose income is not more than 100% of the statewide nonmetropolitan median. This provision provides interest reductions to communities

which need them while denying them to communities which can afford market rates.

2. A grant rate formula based on community income and size. The amendment provides that the grant rate for each water-sewer project be determined by a formula based on community income level and size -- the two factors most related to ability to pay. Further, communities whose income is less than 80% of the statewide nonmetropolitan median and whose population is less than 1,500 would receive the maximum, 75%, grant rate. No community is restricted from access to grant funds. (Current FmHA regs prohibit grants to communities above 85% of state non-metropolitan median family income.) However, the smallest and poorest communities would receive the largest grants.

3. Implementation of a project selection system. The amendment provides a project selection system incorporating three equally weighted, objective factors -- community size (with smallest communities receiving priority), community income (with poorest communities receiving priority) and severity of health need -- as a means of deciding which projects get the limited funds available.

4. Incentives for larger, higher income communities to include smaller, lower income communities in their project areas. The amendment provides that, in determining interest rates and grant amounts for multi-community projects, the median income and size of the communities taken together would be utilized. Incorporating a poorer, smaller community in its project area would qualify a better-off community for FmHA assistance at lower cost.

5. Authorization for a technical assistance program. The amendment provides for the funding of nonprofit, technical assistance centers and the earmarking of 2.5% of FmHA water-sewer grant program funds for this purpose. Small amounts of federal funds for technical assistance to rural communities can save hundreds of millions of federal and local funds wasted on inappropriate, excessively costly systems.

6. Establishment of a predevelopment fund. The amendment provides a predevelopment fund (minimum of 5% of grant funds) for poor communities with costly technical problems which must be solved before they can compete for FmHA assistance.

These amendments insure, in simple, predictable ways, that limited grant and loan funds are used in communities whose needs are most severe. They promote cost-effectiveness through changes in grant rate rules, as well as the creation of technical assistance and predevelopment fund programs. Moreover, these changes eliminate the current thicket of confusing, contradictory and complex FmHA regulations which have made the water-sewer assistance programs unworkable for communities lacking even the most basic water and waste disposal facilities.

These amendments, along with the appropriations levels we have proposed, will provide rural people with access to clean drinking water and adequate waste disposal systems they so desperately need.

CONCLUSION

There is a continuing need for decent housing and water-sewer systems in rural America. And while there has been great progress over the last decade, there is still much to be done. NRHC supports the continuation and improvement of federal rural housing and water/sewer programs under the Farmers Home Administration. We hope our testimony lends itself to this effort. We look forward to working with you, Mr. Chairman, to ensure better rural housing and rural development programs.

TABLE 1

1980 CENSUS OF HOUSING

HC80-1-A

SELECTED DATA

	(1) TOTAL	(2) RURAL	(3) Outside Urbanized areas, places of 2500 to 10,000 pop.	(4) Rural plus places of 2500 -10,000
1. Population	225,250,182	59,494,813	14,398,522	73,893,335
Percent	100%	26.4%	6.4%	32.8%
2. Occupied year around housing units	80,136,530	19,837,956	5,174,694	25,012,650
Percent	100%	24.8%	6.5%	31.1%
3. Occupied yr around units lacking complete plumbing	1,739,378	902,249	98,740	1,000,989
Percent	100%	51.9%	5.7%	57.5%
4. Occupied yr around units overcrowded	3,352,303	768,243	204,724	972,967
Percent	100%	22.9%	6.1%	29.0%
5. Total substandard occupied units	5,091,681	1,670,492	303,464	1,973,956
Percent	100%	32.8%	6%	38.8%
6. Percent of all occpied units:				
a- lacking complete plumbing	2.2%	4.5%	1.9%	4%
b- overcrowded	4.2%	3.9%	4.%	3.9%
c- substandard	6.4%	8.4%	5.9%	7.9%

7. All Substandard Units

(Column (1) minus column(4)):
4,117,725

Percent of total 61.2%

Percent of all
other occupied
units substandard 5.7%

Source: Housing Assistance Council

TABLE 2

Rural Housing - Various Estimates of Rural Substandard Housing by State by Percentage
Rural Areas and Places of 2,500-10,000 Outside Urbanized Areas

	Population	Occupied Year Round Housing	Occ. Yr. Rnd. Hsg. Lacking Plumbing	Occ. Yr. Rnd. Hsg. Over-Crowded	Occ. Yr. Rnd. Hsg. Sub-standard	% Occ. Yr. Rnd. Hsg. Sub-standard
U.S. TOTAL	73,893,335	25,012,650	1,000,989	972,967	1,973,956	7.9%
Alabama	1,898,277	633,482	47,309	30,485	77,794	12.3%
Alaska	189,431	57,229	12,592	4,595	17,187	30.0%
Arizona	654,910	208,330	15,486	20,376	35,862	17.2%
Arkansas	1,414,416	495,590	29,386	24,046	53,432	10.8%
California	2,911,248	996,867	15,211	68,120	83,331	8.4%
Colorado	751,094	260,989	5,590	9,745	15,335	5.9%
Connecticut	735,723	245,541	2,519	3,630	6,149	2.5%
Delaware	203,264	70,184	2,496	2,009	4,505	6.4%
Florida	2,042,401	736,421	15,621	35,926	51,547	7.0%
Georgia	2,481,491	818,188	48,075	42,262	90,337	11.0%
Hawaii	218,009	64,898	2,994	10,907	13,901	21.4%
Idaho	560,899	184,890	3,482	9,491	12,973	7.0%
Illinois	2,349,021	812,386	17,675	20,798	38,473	4.7%
Indiana	2,603,815	889,467	18,172	22,038	40,210	4.5%
Iowa	1,632,530	579,438	11,303	10,520	21,823	3.8%
Kansas	1,025,774	371,058	6,273	8,070	14,343	3.9%
Kentucky	2,092,060	702,312	74,947	26,638	101,586	14.5%
Louisiana	1,689,441	540,372	23,767	39,236	63,003	11.7%
Maine	760,658	261,878	15,904	7,401	23,305	8.9%
Maryland	971,563	312,467	14,928	7,273	22,201	7.1%
Massachusetts	1,148,889	388,119	4,448	7,594	12,042	3.1%
Michigan	3,194,568	1,059,782	18,267	30,950	49,217	4.6%
Minnesota	1,638,889	571,930	18,241	15,542	33,783	5.9%
Mississippi	1,569,605	500,550	43,066	34,486	77,552	15.5%
Missouri	1,981,619	710,831	25,782	23,147	48,929	6.9%
Montana	461,226	160,764	4,466	6,974	11,440	7.1%
Nebraska	746,010	267,613	4,205	5,569	9,774	3.7%
Nevada	173,311	62,967	1,119	3,095	4,214	6.7%
New Hampshire	509,095	175,107	4,946	3,930	8,876	5.1%
New Jersey	995,210	332,039	3,499	6,800	10,299	3.1%
New Mexico	531,463	166,083	13,643	16,275	29,918	18.0%
New York	3,250,382	1,077,879	22,388	25,422	47,810	4.4%
North Carolina	3,442,876	1,177,278	73,203	46,050	119,253	10.1%
North Dakota	397,490	134,239	4,057	4,112	8,169	6.1%
Ohio	3,454,591	1,134,339	35,521	29,805	65,326	5.8%
Oklahoma	1,347,617	483,199	11,576	19,987	31,563	6.5%
Oregon	1,099,823	389,905	6,612	14,212	20,824	5.3%
Pennsylvania	4,339,895	1,471,212	38,177	33,460	71,637	4.9%
Rhode Island	142,252	45,864	656	1,002	1,658	3.6%
South Carolina	1,771,708	570,565	36,462	33,092	69,554	12.2%
South Dakota	434,468	147,571	5,163	5,890	11,053	7.5%
Tennessee	2,154,991	738,116	50,999	27,125	78,124	10.6%
Texas	3,889,032	1,318,379	53,521	85,314	138,835	10.5%
Utah	332,296	96,364	1,569	7,445	9,014	9.4%
Vermont	416,492	145,301	4,360	3,450	7,810	5.4%
Virginia	2,088,669	700,103	65,877	21,766	87,643	12.5%
Washington	1,337,567	466,863	8,233	16,706	24,939	5.3%
West Virginia	1,422,812	481,729	36,755	17,905	54,660	11.3%
Wisconsin	2,115,125	705,094	18,852	17,886	36,738	5.2%
Wyoming	256,339	87,878	1,596	4,410	6,006	6.8%

Source: Housing Assistance Council

TABLE 3

FY 1982 FmHA Rural Housing

Program Dollar Levels Per State

STATE	1982 ACTUAL
U.S. TOTAL	$3,884,125,974
Alabama	75,861,274
Alaska	18,388,374
Arizona	37,690,368
Arkansas	87,017,017
California	196,260,269
Colorado	42,810,852
Connecticut	40,539,552
Delaware	5,969,560
Florida	122,596,989
Georgia	144,442,670
Hawaii	15,238,400
Idaho	26,347,872
Illinois	104,037,382
Indiana	95,777,010
Iowa	114,842,936
Kansas	40.975,200
Kentucky	128,356,792
Louisiana	139,981,068
Maine	79,786,350
Maryland	48,227,950
Massachusetts	45,114,898
Michigan	94,165,032
Minnesota	86,217,700
Mississippi	112,710,410
Missouri	115,602,490
Montana	33,170,476
Nebraska	30,548,434
Nevada	14,605,112
New Hampshire	39,328,430
New Jersey	44.924,726
New Mexico	51,348,864
New York	80,570,216
North Carolina	242,651,232
North Dakota	49,689,440
Ohio	75,027,602
Oklahoma	90,216,010
Oregon	72,417,958
Pennsylvania	112,588,126
Rhode Island	11,363,240
South Carolina	114,884,762
South Dakota	23,364,510
Tennesse	129,935,426
Texas	151,905,144
Utah	32,535,850
Vermont	33,553,720
Virginia	73,912,444
Washington	73,671,670
West Virginia	75,309,056
Wisconsin	73,628,554
Wyoming	83,010,408
Puerto Rico	76,836,090
Virgin Islands	3,917,500
W.P.T.T.	13,221,620

Source: Housing Assistance Council

TABLE 4

DOLLAR LEVELS, FmHA PROGRAMS, FY 1979-1984
(dollars in Millions and Rounded)

Rural Housing	1979	1980	1981	1982	Appropriation 1983	Budget 1984
502 Home Ownership Loans	2,878.1	2,843.4	2,589.3	2,476.4	2,300.0	280.0
504 Low-Income Repair Loans	14.7	21.9	17.9	10.0	24.0	1.0
504 Low Income Repair Grants	19.0	24.0	22.7	13.6	12.5	-0-
514 Farm Labor Housing Loans	36.3	24.6	18.5	11.9	19.0	3.0
516 Farmlabor Housing Grants	32.4	22.3	10.5	14.9	12.5	4,393
515 Rural Rental Housing	869.5	881.3	864.0	953.7	940.0	16.0
523 Self-Help T.A. Grants	5.6	6.2	12.4	4.7	12.5	-0-
523 & 524 Site Loans	4.7	1.3	.9	.4	2.0	-0-
525 Tech. & Supv. Assistance Grants	2.5	1.5	1.0	-0-	-0-	-0-
Rental Assistance Contracts	423.0	393.0	403.0	390.0	123.745	62.0
Rural Housing Block Grants	-0-	-0-	-0-	-0-	-0-	850.0
TOTAL RURAL HOUSING(a)	4,285.8	4,219.5	3,941.0	3,883.6	3,446.245	1,216.393(a)

TABLE 5 - Recommended Funding Levels

(1)	Sec. 513(a)		
	Sec. 502	Subsidized homeownership loans	$2,500,000,000
	Sec. 502	Unsubsidized homeownership loans	$130,000,000
	Sec. 514	Farm labor housing loans	$25,000,000
	Sec. 515	Subsidized rural rental and cooperative housing loans	$1,250,000,000
	Sec. 521	Rental assistance	$450,000,000
	Sec. 524	Rural housing site loans	$2,000,000
	Total		$4,362,000,000
(2)	Sec. 513(b)		
	Sec. 504	Low income repair loans	$25,000,000
	Sec. 504	Low income repair grants	$25,000,000
	Sec. 509(c)	Compensation for construction defects	$2,000,000
	Sec. 516	Farm labor housing grants	$25,000,000
	Sec. 525	Technical and supervisory assistance grants	$5,000,000
	Sec. 525	Farm labor housing technical assistance grants	$2,500,000
	Sec. 532(e)	Rural Housing Preservation Grant Program	$250,000,000
	Total		$334,500,000
(3)	Sec. 523		
	Sec. 523	Self-help technical assistance grants	$15,000,000
	Sec. 523	Self-help revolving loan fund	$3,000,000
	Total		$18,000,000
GRAND TOTAL			$4,709,500,000
(4)	Water-Sewer		
	Loans		$500,000,000
	Grants		$300,000,000

TABLE 6

Section 515 and Rental Assistance Subsidy Costs(a)

Per Unit Per Year

FY 1982(b)

Rental Assistance - $1,368.48
Interest Credit - $4,108.55

Total - $5,477.03

FY 1983(c)

Rental Assistance - $1,450.59
Interest Credit - $3,186.55

Total - $4,637.14

(a) Rental Assistance from FmHA MISTR study

(b) Interest Credit estimated based on:

- average unit cost of $31,149
- average cost of CBO's to government (not rate to borrowers, which was lower) + 14.19%
- interest credit to 1% = 13.19% subsidy

(c)
- rental assistance = 1982 actual + 6%
- average unit cost estimate = $34,264
- average cost to government (borrowing) est. = 10.3%
- interest credit to 1% = 9.3% subsidy

TABLE 7

Farmworker Housing Need

Selected States, Total

State	Migrant Farmworkers And Dependants	Housing Adequate or to Be Rehabilitated	Unmet Demand
Total	1,181,585	425,029	756,196
Texas	373,495	4,654	368,841
Michigan	73,810	4,236	69,574
N. Carolina	72,880	7,505	65,375
Washington	56,950	7,363	49,587
Illinois	39,500	387	39,113
Florida	93,780	56,637	37,143
S. Carolina	19,260	1,572	17,688
Ohio	18,770	1,226	17,544
Georgia	8,510	2,073	6,437

Source: National Farmworker Housing Survey, 1980

ADDENDUM

NRHC PROPOSALS

NRHC believes that the best way to improve federal rural housing assistance is to work within the existing system. In December, the Coalition sponsored a two-day legislative conference to develop proposals to streamline, better target and generally improve the FmHA housing programs. Out of this effort came the following proposals which we strongly recommend to the Committee:

1. Adopting the Rural Housing Preservation Grant Program. NRHC supports the creation of a new program: Rural Housing Preservation Grants. With over 850,000 units of substandard rural housing occupied by households with incomes below the poverty line, there is an increased need for a high volume, flexible home repair program targeted to very low income households. And, while the FmHA Section 504 loan and grant program (restricted to the elderly) has proved to be a valuable resource, staff limitations on FmHA are such that a mere increase in funding for that program may not provide satisfactory results.

At the same time, we believe there is a continuing and increasing ability of local organizations to conduct comprehensive home repair programs. By our estimates there are close to 3,000 units of local government, nonprofits and other public bodies of varying types across the country (COGs, public housing authorities, etc.) which have conducted housing development, home repair or weatherization programs.

The Preservation Program, by encouraging a close working relationship between FmHA offices and local entities, is the most efficient way to provide improved housing for low income rural people. The idea behind the Preservation Program is to improve the delivery of rehabilitation assistance by employing the expertise of housing organizations at the local level.

Under our plan, funds would be allocated on a state by state basis according to rural substandard housing, rural low income population, age of housing stock, and heating degree days. Grants would be awarded on a competitive basis to applicants which would then make assistance available for rehabilitation of rural housing occupied by very low income persons (those with incomes at 50% or less of the area's median income).

This proposal alters the traditional role of FmHA staff in administering this program. FmHA state staff would rank and fund qualified applicants. Grant monitoring would be the responsibility of the relevant FmHA district office. However, FmHA would not be responsible for processing individual applications for assistance; that would lie with the local grantees.

In short, FmHA's role would be one of review and monitoring. The local grantee would operate the program on a day to day basis. By removing FmHA from processing, production of units repaired should be increased. By continuing to employ the current FmHA structure, adequate oversight and assistance to local operators would be ensured.

We recognize that many state agencies have indicated an interest in this program. States can play a positive role by providing technical assistance and other forms of support to local housing organizations. Given the existing presence of the FmHA structure, the involvement of state government in program administration is, in our view, duplicative. Why pay state government to conduct functions that FmHA is able to carry out? Why reduce the funds available to repair the homes of low income people by allowing state government a rake-off of administrative monies to establish a duplicative system?

2. Extending the term of the 502 homeownership program. The term for Section 502 homeownership loans should be changed from the present 33 years to 50 years while retaining the subsidy term at 33 years. This would lower the family income needed to be eligible for a loan, thus better enabling FmHA to meet its statutory requirements to provide low income people with at least 30% of the assistance available. Costs to the government will not rise significantly because few 502 borrowers

remain in their homes more than ten years and, upon sale, subsidy funds would not be increased. Borrowers who remain would pay a balloon payment at the end of the 33rd year.

3. Increasing the flexibility of all FmHA housing programs. Some types of housing projects not presently eligible for FmHA funding should be made eligible, to increase the flexibility and effectiveness of FmHA programs. The use of self-help funding to finance construction of duplexes or townhouses, when appropriate, is one example.

4. Improving the Section 515 program. The Section 515 rural rental housing program should be improved by allowing:

- transfer of unsalable Section 502 units for use as Section 515 rental units;
- conversion of owner-occupied large single family residences into two or more rental units;
- use of detached units, including those on scattered sites, for cooperative housing;
- purchase and rehabilitation of existing housing for use as Section 515 rental units.

5. Improving delivery of the Farm Labor Housing Program. The Section 514 and 516 farm labor housing program should be improved by:

- providing up to 10% of the funds authorized for Section 516 for grants to nonprofit organizations to cover the administrative and associated costs of planning, preparing applications and developing housing financed under Section 516. This will increase production under this program.
- taking into account only the need for farm labor housing, regardless of other housing needs in the area, when determining an area's need for Section 514 or 516 farm labor housing.

6. Targeting assistance to the neediest people. All FmHA housing programs should be better targeted to those with the lowest incomes and the worst housing.

BLOCK GRANT PROPOSAL

Mr. RAPOZA. First of all, we would like to thank you for the initiative that you displayed last year regarding the rural housing block grants. As you might guess, we continue to oppose the block grant, and we feel better than we felt at this time last year with regard to the opportunities for block grant passage. We think the rural areas continue to need the financing provided by Farmers Home, the housing units provided by Farmers Home, and the delivery system provided by Farmers Home. We feel there is little to recommend the block grant proposal that hasn't been made by Farmers Home.

RURAL HOUSING NEED

Within the current Farmers Home system, we continue to be concerned about the provision of housing for very low-income households. Despite the fact there has been significant progress made between 1970 and 1980 in reducing the overall substandard housing in rural areas, the number of poor households living in substandard housing is, in fact, about the same in 1981 as it was in 1970. There are about 800,000 households who live in substandard housing in rural areas who are poor, and that number has not improved. We would hope within the resources that the administration has and that the Congress has for rural housing, there be a continued emphasis to provide housing to the worst housed, poorest people first.

RECOMMENDED APPROPRIATION LEVELS

Within all that, we would like to recommend that the 502 and 515 programs be funded at a level of $2.5 billion and $1.25 billion, respectively, and that the rental assistance program, which when used with section 515 is one of the best programs that Farmers Home has to house low-income people, be funded at a level of $450 million. This would provide 6,000 units to be extended that are currently receiving subsidy, 16,248 units to receive subsidy that are in 515 units that are currently being occupied by low-income households, and 20,500 units for new construction.

The 515 rental assistance program compares favorably with regard to the per unit subsidy cost to other comparable Federal programs, including the section 202 program that HUD has with a per unit cost of $6,802. We think that is a good deal for provision of housing for low-income people.

We would also like to recommend $15 million for the self-help housing technical assistance program. Self-help housing families have lower incomes than the regular 502 borrowers. Through the self-help construction method, these families can save about $10,000 over a contractor-built 502 house. We think this is a good, successful program, and once again, provides a good way to providing housing to low-income people.

We would also like to recommend funding for the rural housing preservation grant program, which is the program that the Rural Housing Coalition has developed over the last year. It is contained in both the House and Senate Banking Committee prints. The aim of the preservation program is to increase the home repair volume for very low-income people to go beyond the repair of health and safety violations that the 504 program now finances, and to involve local governments more in home repair for low-income households. We think this program represents a significant improvement over the current 504 program, and we think by working through local institutions we can significantly increase the volume of home repair done or financed by Farmers Home.

Finally, we would like to protest, as some of the other witnesses have, the transfer of funds from the water-sewer program to the farm programs. We understand the importance of providing adequate resources for farmers. At the same time, the water-sewer program has been cut back over the last 3 years from about the $1 billion level. The jobs bill funds brought it back up to about that level, and also provided for an important change with regard to the allocation of grant funds, sending it back to the 1981 formula. We have supported legislation in both the House and the Senate to try to better target those funds to low-income communities. We are hoping that that, plus the funds you will put back into the water and wastewater program for fiscal 1984, will bring about a much more useful and vitally needed water-sewer program.

I would be happy to respond to any questions that you have.

Senator COCHRAN. Thank you very much for your testimony. We really appreciate having all this information you have submitted to the committee. I think it will be very helpful to us.

BLOCK GRANT PROPOSAL

I also want to thank you for the assistance you provided my staff and me as we have tried to deal with the block-grant proposal that came out of the Banking Committee last year. You helped us a great deal in communicating with other members' offices and helping to develop support for the legislation that I introduced, which was, I think, going to pass if it had come to a vote. That legislation would have preserved and protected the housing programs that we have and prevented them from being converted into a block-grant scheme that would have resulted in a tremendous reduction in the allocation of Federal resources for rural housing activities. We may need to get ready to do something about the bill that has already been reported out this year. I don't think the changes that the committee has recommended have been as drastic as they were last year. Nevertheless, there may be some room for improvement of it. We continue to look forward to working with you in a close way to make sure that legislation does meet the needs of my constituents, who are poor and living in conditions that are not the most desirable, and other people who are situated all over the country in similar circumstances.

I don't really have any questions; however, I don't know that we will be able to make the level of funding as high as you are recommending. I think that may be overly optimistic about what the Congress is able to do. I don't think this should be judged as lack of commitment. We have to recognize there are budget constraints. We want to try to cooperate to reduce the growth of spending and to keep a degree of control over the funding process. I imagine the funding levels in the final analysis are going to be less than that recommended, but we are going to try to do everything we can to make sure the funding level is adequate and fair in comparison with other programs that are competing for these limited resources.

Let me thank you again for being here. We appreciate your contribution to the hearing.

Mr. RAPOZA. Thank you, sir.

NATIONAL ASSOCIATION OF HOME BUILDERS

STATEMENT OF ERNEST R. COLEMAN, CHAIRMAN OF THE RURAL COMMITTEE

ACCOMPANIED BY:

JIM SCHUYLER, STAFF VICE PRESIDENT AND LEGISLATIVE COUNSEL
PATRICIA ECONOMOS, ASSISTANT FOR CONGRESSIONAL LIAISON

Senator COCHRAN. Our next witness is Mr. Ernest R. Coleman, who is chairman of the Rural Committee, National Association of Home Builders.

Welcome to the committee, Mr. Coleman.

Mr. COLEMAN. Thank you, Mr. Chairman. My name is Ernest Coleman. I am here representing the National Home Builders Association and serve as the chairman of the Rural Development Committee. I am a home builder from Fort Smith, Ark. I build about 350 homes a year, including both 502 and 515 houses. With me today are Mr. Jim Schuyler, our staff vice president and legislative counsel, and Patricia Economos, assistant for congressional liaison.

Mr. Chairman, the same conditions exist today that existed in 1949 that made this program necessary. We feel that there is a lack of commitment on the part of the Farmers Home people, and we have to solve the problem as best we can.

Mr. Chairman, it is a privilege to appear before you and to thank you for your foresight in introducing last year's amendment to delete the rural housing block grant from the Senate housing authorization bill and to support existing funding levels. Your leadership in this behalf was commendable, and your concern was shared by over 40 of your colleagues. As you are aware, the Senate Banking Committee last week provided an authorization of $3.6 billion for the existing rural housing programs and rejected the block-grant approach. We think this is the best approach. With over 2,000 offices in 3,000 counties, it is the most effective approach to meeting housing needs.

HOUSING INDUSTRY OUTLOOK

Before we go on, I would like to mention some bright spots in our economy and housing industry. It is fragile at best, and we are excited about the fact that housing starts for January were 1.7 million units. It is projected we will have housing starts of 1.5 million units for 1983.

After the dismal year in 1982—that was the lowest since 1946—house sales were up in February, but down 6 percent from the January rate.

The conventional interest rate is 13 percent, which sounds low in comparison to the high of 17 percent. Yet, income is not available in the rural areas to afford the kind of housing for these buyers, and again Farmers Home Administration seems to be the only delivery system that will work.

Unemployment in March was 20.3 percent, and that was up from 19.7 percent in February. I think although we are excited about what is happening, we do have to be somewhat cautious and realize that if interest rates go up, then the housing program will change drastically.

GOVERNMENT ASSISTED HOUSING

Mr. Chairman, last month there were over 200 rural builders in Washington, representing over 15,000 builders in the United States who build in rural communities. One of the purposes for them being here was to object to the rural block grant. If the housing industry is a bright spot in the recovery, as we mentioned, this is not the time to eliminate rural housing programs. HUD-assisted housing represented 4.2 percent of the Federal budget in fiscal year 1980, and this would slip to 0.1 percent in 1984 under the administration's proposal. It is expected to drop 50 percent from 1982 to 1983. The numbers will be approximately 192,000 starts in 1982, and the number of starts would be approximately 98,000 in 1983. Most of this limited activity is expected under the rural housing programs.

Under the block grant, as we mention in the testimony, as I am sure you are aware, in Mississippi the funding would go from $113 million in 1982 to a possible $34 million under the block grant. Another thing about the block grant program is that over the 5-year period, it remains at the same level and does not take into account the fact of inflation.

Based on the numbers we have and our department has worked with, under the block grant program there could be a possible 96-percent decrease in the amount of housing built in the rural areas.

BUDGET REQUESTS

Mr. Chairman, we strongly support funding for the rural housing programs at the 1983 level. To maximize the effectiveness of these funds, we believe 75 percent should be allocated for new construction. As you are aware, a tremendous ripple effect happens in construction. There would be approximately 65,000 units in new housing, which will generate $370 million in Federal income taxes alone. For every 100 units of new construction, the equivalent of 80 full-time jobs are created. In addition, a sufficient amount of rural rental assistance should be provided to the section 515 program.

It is also noted that the Farmers Home single family program is a limited assistance program. As the borrower's income increases, so does his payment. When the property is sold, the Government recaptures all or part of the money.

In conclusion, over 1.7 million loans, totaling over $30.5 billion, have been made for individual housing loans since 1949. As you are aware, Mr. Chairman, the State of Mississippi is one of the leaders in this. Our association strongly believes that the Farmers Home programs are the only housing programs that can bring housing opportunity to rural America. The current FmHA programs provide for an effective mortgage delivery system for new residential construction. Their effective delivery system is critical to provide needed accessibility to credit.

We urge Congress to reject the administration's proposal which would dismantle our rural housing credit and housing delivery system and provide funding for FmHA housing programs at fiscal year 1983 levels.

I appreciate your letting me appear before the committee and would be willing to answer any questions.

Senator COCHRAN. Thank you very much, Mr. Coleman, for your statement. We appreciate your being here and helping to make a record on these issues that are generated with this proposal to reduce funding in this important area of activity. I share many of the concerns expressed by you in the statement and agree with you in principle on everything you said. I don't know how we are going to come out in terms of the dollar level of funding in these programs, but I know the members of the committee agree with me that we must continue this program. We will try to work out a level of funding that will meet the needs of people who live out in rural areas who depend on these programs. They couldn't buy houses in many places in my State, and yours—Arkansas—and others if they didn't have this assistance through the Farmers Home Administration. I think the multifamily projects and others are equally valuable.

I notice that in your statement you suggest that at least 75 percent of the funds in the program ought to be targeted to new construction, and you point out the ripple effect that has on jobs. What is the percentage under the funding that we have now; do you have those figures? How much of a change would that be?

Mr. COLEMAN. It is not 75 percent; it is more like 60 percent.

Another thing I would like to mention—a particular problem that people in Mississippi and Arkansas have to live with, because we share a position at the bottom of the income ladder—is that under the targeting, 50-percent median income would almost disappear, because 50 percent of the median is around $6,000. A person making $6,000 just does not have repayment ability by the time he makes the car payment, which he has to have to get to work, and then the color TV and other things that go along with it. It is critical to find that person who has $75 or $100 a month in house payments, particularly if he has a couple of children.

Senator COCHRAN. That proposal would just eliminate that group from consideration as low income?

Mr. Coleman. Well, if you target 40 percent of the funds to those people, it is going to really cut back the program. I think the program has a ripple effect in that the people in the moderate-income group are really the people who cannot have housing, because they don't make enough to qualify under FHA or HUD, and they are too low to qualify for Farmers Home. But if we provide housing at that level and there is ripple income, and some housing provided for low income, in some areas that is not enough. Not everyone wants to move into a Farmers Home house. We should work with those people as best we can. If we limit the program in some areas, we are going to kill them. I don't think we ought to exclude, but I don't think we ought to have such tight reins on the program.

Senator COCHRAN. Thank you very much for your help. Your full statement will be placed in the record.

[The statement follows:]

STATEMENT OF ERNEST R. COLEMAN

Mr. Chairman and Members of the Subcommittee:

My name is Ernest R. Coleman and I am a homebuilder from Fort Smith, Arkansas. I am testifying on behalf of the more than 107,000 members of the National Association of Home Builders (NAHB). NAHB is a trade association of the nation's homebuilding industry, and I am Chairman of the NAHB Rural Committee. I build approximately 350 homes a year including both FmHA Sections 502 and 515 rural housing programs in both Arkansas and Oklahoma. Accompanying me today are Jim Schuyler, Staff Vice President and Legislative Counsel and Patricia Economos, Assistant for Congressional Liaison. I am pleased to be here to testify on the FY'84 appropriations for the Farmers Home Administration's housing programs.

The conditions which in 1949 gave rise to the authorization by Congress for the Farmers Home Administration to make housing loans still exist today. But we believe that the commitment of this Administration to the future of these programs is in serious doubt. We oppose the Administration's proposal to implement a block grant program (S.761) for rural housing programs and support funding for these programs at FY'83 levels.

Mr. Chairman, it is a privilege to appear before you and to thank you for your foresight in introducing last year's amendment to delete the rural housing block grant from the Senate Housing Authorization bill and to support existing funding levels. Your leadership in this behalf was commendable and your concern was shared by over 40 of your colleagues. As you are aware, the Senate Banking Committee last week provided an authorization of $3.6 billion for the existing rural housing programs and rejected the block grant approach.

Your continued role in rural housing programs will allow Farmers Home to continue to act as he most effective mortgage credit delivery system in rural America. With over 2,000 offices in 3,000 rural counties, we believe no other approach is as effective to meet these needs.

Before I comment on the specifics of the Administration's proposal, I would like to outline for the Subcommittee the state of the housing industry today.

STATUS OF THE HOUSING INDUSTRY/OUTLOOK

The housing recovery has received much attention recently as one of the bright spots in the economic picture. I would agree that there is a real recovery although modest and fragile. The signs are mixed, but pointing upward.

HOUSING PRODUCTION

New housing production in 1982 totalled 1.07 million units, the lowest since 1946. Housing starts in the first quarter of 1983, however, soared to the 1.7 million level. Based on NAHB's most recent econometric forecast, total housing production is expected to increase to 1.5 million units in 1983.

NEW HOME SALES

While 1982 was the worst year for new home sales since the Census Bureau began collecting statistics in 1963, sales of new homes in February were up 49% from a year ago but down 6% from the January rate.

INTEREST RATES

Conventional mortgage interest rates now average 13 percent. Although mortgage interest rates were much higher last year, they are still high by historical standards and incomes needed to afford are still beyond the reach of many potential homeowners.

UNEMPLOYMENT

Unemployment in the construction trades in March was 20.3%, up from the 19.7% in February. The February rate represented the first time the monthly rate had been below 20% since June of 1982.

I must bring a note of caution to this discussion. If interest rates begin to head upward ... if the Federal Reserve Board returns to its strict monetarist policy ... of if the federal budget deficits remain in the $200 billion range for the next few years ... our forecast would be as pessimistic as the actual level of activity in 1982.

GOVERNMENT ASSISTED HOUSING

Mr. Chairman, we had over 200 rural builders in Washington last month representing over 15,000 builders in the United States who build in rural communities. They were here to protest the Administration's proposed rural housing block grant which substantially cuts the existing rural housing programs for both single family and multifamily housing.

If the housing industry is to continue to be the "bright" spot in the economic recovery, this is certainly not the time to eliminate rural housing programs. HUD-assisted housing which represented 4.2 percent of the federal budget in FY'80 would slip to 0.1% share in

FY'84 under the Administration's proposal. Our Economics Division has projected that government assisted production of all types will be down by 50 percent from 1982 to 1983 (see Chart I). It is expected to drop from 191,700 starts in 1982 to 98,400 in 1983. Most of this limited activity is expected to be under the rural housing programs.

ADMINISTRATION'S BUDGET

Mr. Chairman, the Administration's proposal to Congress to consolidate rural housing programs into an $850 million block grant would cut rural housing programs by two-thirds from $3.4 billion in FY'83 to $1.2 billion in FY'84.

The 502 single family interest credit program would be cut by 88 percent from $2.3 billion in FY'83 to $280 million in FY'84; the 515 rural rental program by 98 percent from $940 million to $16 million and the rural rental assistance program by almost 50 percent from $123.7 million to $62 million. And if the rural rental assistance program is compared to FY'82 levels of $398 million, the cut is 84 percent. The Administration is simply budgeting for these programs to provide housing assistance if some states are not prepared to accept the block grant at the beginning of the fiscal year.

In addition, the block grant is appropriated at the same level for five years not accounting for inflation or for renewing existing contracts. It is a multipurpose grant with new construction lost in the list of various uses of the program. I do not believe that the states would be able to leverage the money for the block grant (as asserted by the Administration) to reach the equivalent of existing housing programs. State housing finance agencies, the likely group to administer the program for the states, have not generally focused their activities in rural areas.

The amount of funds lost under the block grant by state is substantial. In your own state of Mississippi, Mr. Chairman, funding under the existing programs was allocated at approximately $113 million in FY'82, but under the block grant your state would only receive $34 million (see Chart II).

The following table emphasizes the cuts and the number of units lost if the rural housing block grant were implemented.

RURAL HOUSING PROGRAM CUTS

	FY'83 ESTIMATE	FY'84 BUDGET	PERCENT CHANGE '84 over '83
Section 502	$2.3 billion	$280 million	-87.8%
Single-Family	54,445 units	2,600 units	-95.2%
Low Income	33,800 new	1,000 new	-97.0%
Section 502	$ 29 million	- 0 -	-100%
Moderate	745 units		-100%
	238 new		
Section 515	$940 million	$ 16 million	- 98.3%
Rental	28,300 new	- 0 -	-100%
Rural Rental	$123.7 million	$ 62 million	- 49.9%
Assistance	(11,750 units)	(6,000 units)	- 48.9%
	4,750 new	- 0 -	-100%
Block Grant	--	$850 million*	--
TOTAL NEW CONSTRUCTION	62,338 new units	1,000 new units	- 98.4%
TOTAL FmHA	$3.4 billion	$ 1.2 billion	- 64.7%
HOUSING PROGRAMS	92,730 units	3,038 units*	- 96.7%

* Because of the varied uses of the block grant, it is not possible to estimate new units.

NAHB POSITION

Mr. Chairman, NAHB strongly supports funding for rural housing programs at the FY'83 funding levels. To maximize the effectiveness of these funds, we believe that 75 percent should be allocated for new construction. As you are aware, there is a tremendous ripple effect involved in the construction of new housing. The approximate 65,000 units of new FmHA housing will generate $370 million in federal income taxes alone. For every 100 units of FmHA new construction, the equivalent of 80 full-time jobs are created. In addition, a sufficient amount of rural rental assistance should be provided to make the 515 program feasible.

It should also be noted that the Farmers Home single family program is a limited assistance program. As the borrower's income goes up, the assistance is reduced. When the home is sold, the government recaptures the money.

CONCLUSION

Rural housing programs have had a record of great accomplishment, achievement and growth. Over 1.7 million loans totalling over $30.5 billion have been made for individual housing loans since 1949. Over 15,500 loans totalling over $6 billion have been made for rural rental housing. Mississippi, Mr. Chairman, is one of the leaders in the number of subsidized rural housing loans obligated each year (see Chart III).

Mr. Chairman, our Association strongly believes that the Farmers Home programs are the only housing programs that can bring housing opportunity to rural America.

The current FmHA programs provide for an effective mortgage delivery system for new residential construction. Their effective delivery system is critical to provide needed accessibility to credit.

We urge Congress to reject the Administration's proposal which would dismantle our rural housing credit and housing delivery system and provide for funding for FmHA housing programs at FY'83 levels.

Thank you for this opportunity to present our views. I will be happy to respond to any questions.

Chart I

FEDERALLY SUBSIDIZED HOUSING STARTS 1982-1983

Program	1982	1983
FHA Multifamily	21,000	26,000
Section 8 and Public Housing	95,000	5,500
Section 235	10,700	2,000
Farmers Home	65,000	65,000
	191,700	98,400

CHART II

FmHA RURAL HOUSING PROGRAMS

STATE	1982 ACTUAL	FY 1984 Budget Proposal		
		Block Grant	FmHA	Total
U.S. TOTAL	$3,884,125,974	$850,000,000	$374,500,000	$1,224,500,000
Alabama	75,861,274	26,537,299	10,622,832	37,160,131
Alaska	18,388,374	3,406,159	2,357,600	5,763,759
Arizona	37,690,368	5,501,635	2,455,355	7,956,990
Arkansas	87,017,017	17,313,970	7,519,363	24,833,333
California	196,260,269	23,090,687	10,272,977	33,363,664
Colorado	42,810,852	6,278,337	2,769,042	9,047,379
Connecticut	40,539,552	7,443,389	3,294,469	10,737,858
Delaware	5,969,560	1,990,297	877,057	2,867,354
Florida	122,596,989	17,071,250	7,533,532	24,604,782
Georgia	144,442,670	28,381,965	12,497,109	40,879,074
Hawaii	15,238,400	1,593,856	719,961	2,313,817
Idaho	26,347,872	5,501,635	2,436,635	7,938,270
Illinois	104,037,382	22,548,614	9,942,601	32,491,215
Indiana	95,777,010	24,166,742	10,585,147	34,751,889
Iowa	114,842,936	15,226,584	6,635,226	21,618,810
Kansas	40,975,200	9,765,402	4,236,536	14,001,938
Kentucky	128,356,792	35,898,170	15,610,444	51,508,614
Lousiana	139,981,068	16,877,075	7,428,797	24,305,872
Maine	79,786,550	10,898,092	4,726,041	15,624,133
Maryland	48,227,950	9,401,324	4,126,814	13,528,138
Massachusetts	45,114,898	10,978,998	4,817,110	15,796,108
Michigan	94,165,032	31,820,487	14,003,820	45,824,307
Minnesota	86,217,700	17,168,338	7,448,787	24,617,125
Mississippi	112,710,410	23,284,862	10,239,828	33,524,690
Missouri	115,602,490	20,436,957	8,863,663	29,300,623
Montana	33,170,476	5,323,641	2,316,979	7,640,620
Nebraska	30,540,434	7,095,491	3,082,729	10,178,220
Nevada	14,605,112	1,326,865	590,439	1,917,304
New Hampshire	39,328,430	6,051,799	2,639,015	8,690,814
New Jersey	44,924,726	9,555,046	4,190,244	13,745,290
New Mexico	51,348,864	5,833,351	2,585,888	8,419,239
New York	80,570,216	41,213,720	18,048,349	59,262,069
North Carolina	242,651,232	49,312,451	21,498,136	70,810,587
North Dakota	49,689,440	4,959,562	2,151,028	7,110,590
Ohio	75,027,602	35,679,722	15,634,738	51,314,460
Oklahoma	90,216,010	11,747,609	5,088,043	16,835,652
Oregon	72,417,958	10,105,209	4,475,850	14,581,059
Pennsylvania	112,588,126	47,920,861	21,005,354	68,926,215
Rhode Island	11,363,240	1,561,494	673,666	2,235,160
South Carolina	114,884,762	21,763,822	9,540,363	31,304,185
South Dakota	33,364,510	5,436,910	2,382,498	7,819,408
Tennessee	129,935,426	26,901,378	11,813,576	38,714,954
Texas	151,905,144	34,789,752	15,406,549	50,196,301
Utah	32,535,850	2,394,829	1,079,942	3,474,771
Vermont	33,553,720	5,056,650	2,233,246	7,289,896
Virginia	73,912,444	26,326,943	11,523,419	37,850,362
Washington	73,671,670	12,378,679	5,444,988	7,823,667
West Virginia	75,309,056	21,998,450	9,502,418	31,500,868
Wisconsin	73,628,554	21,763,822	9,514,058	31,277,880
Wyoming	33,010,408	2,022,660	876,552	2,899,212
Puerto Rico	76,836,090	35,589,500	16,315,718	51,905,218
Virgin Islands	3,917,500	1,275,000	716,450	1,991,450

SOURCE: Housing Assistance Council

CHART III

TOTAL LOANS AND OBLIGATIONS UNDER FARMERS HOME ADMINISTRATION INSURED LOW TO MODERATE INCOME HOUSING PROGRAMS, FISCAL YEARS 1980-1982

(in thousands of dollars)

	Fiscal Year 1980				Fiscal Year 1981				Fiscal Year 1982			
	Total Subsidized		Total Nonsubsidized		Total Subsidized		Total Nonsubsidized		Total Subsidized		Total Nonsubsidized	
	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations
NORTHEAST												
Connecticut	450	$ 15,566	130	$ 4,044	488	$ 19,049	58	$ 1,144	665	$ 30,227	51	$ 1,495
Maine	1,630	38,831	315	5,662	1,307	34,746	159	2,403	1,554	48,869	129	2,079
Massachusetts	923	28,583	234	6,192	812	28,804	145	3,623	866	33,024	124	3,590
New Hampshire	569	17,932	210	4,149	530	18,840	124	2,037	706	27,455	93	1,511
New Jersey	1,150	35,265	286	6,081	818	25,596	114	2,470	850	27,316	107	2,753
New York	2,006	51,407	938	16,426	1,642	41,292	439	6,653	1,257	30,821	223	2,067
Pennsylvania	2,019	66,642	1,032	25,601	1,937	68,421	424	8,421	2,194	80,088	272	4,646
Rhode Island	222	8,649	26	922	194	7,630	8	269	221	9,753	12	483
Vermont	824	24,786	226	3,250	723	24,037	98	853	782	28,440	133	2,180
Total	9,793	$ 287,661	3,397	$ 72,327	8,451	$ 268,415	1,569	$ 27,873	9,095	$ 315,993	1,144	$ 20,804
SOUTH												
Alabama	2,184	$ 55,610	790	$ 19,312	1,625	$ 42,944	334	$ 7,027	962	25,936	165	$ 3,336
Arkansas	2,504	66,150	733	15,025	2,071	57,738	386	6,109	1,877	50,313	387	6,186
Delaware	171	4,468	53	929	178	5,588	35	741	150	4,090	23	317
Florida	1,943	52,510	598	15,595	2,040	60,065	343	8,449	1,884	58,159	270	6,765
Georgia	2,564	69,341	1,004	24,546	2,694	78,044	417	9,178	2,739	84,521	250	5,897
Kentucky	2,761	75,449	927	20,679	2,589	79,629	306	5,726	2,378	78,368	214	3,671
Louisiana	2,588	86,629	532	15,341	2,794	102,904	290	7,868	2,222	85,184	137	3,427
Maryland	835	26,940	345	9,918	721	24,447	72	1,708	577	18,902	57	1,087
Mississippi	3,144	84,919	1,000	25,072	3,076	86,471	549	12,054	2,348	66,397	440	9,530
North Carolina	4,390	118,893	1,784	39,712	5,319	158,939	833	16,793	4,786	150,153	609	10,853
Oklahoma	2,197	57,360	823	16,847	1,992	58,156	481	9,058	1,383	47,871	405	10,884
South Carolina	1,907	55,118	565	14,462	1,973	60,154	217	4,924	1,832	58,976	180	3,644
Tennessee	2,498	62,180	1,017	23,777	2,998	81,629	617	13,534	2,620	74,220	391	7,913
Texas	2,150	63,650	1,099	28,296	2,225	70,283	531	13,090	2,256	73,772	506	13,739
Virginia	2,376	56,155	675	13,752	2,219	57,020	298	5,236	1,768	38,961	189	2,970
West Virginia	1,271	33,252	495	10,240	1,291	38,515	198	3,362	1,010	32,242	152	3,173
Total	35,483	$ 968,624	12,440	$ 293,503	35,805	$1,062,526	5,907	$ 124,857	30,792	$ 948,065	4,375	$ 93,390

TOTAL LOANS AND OBLIGATIONS UNDER FARMERS HOME ADMINISTRATION INSURED LOW TO MODERATE INCOME HOUSING PROGRAMS, FISCAL YEARS 1980-1982

(in thousands of dollars)

	Fiscal Year 1980				Fiscal Year 1981				Fiscal Year 1982			
	Total Subsidized		Total Nonsubsidized		Total Subsidized		Total Nonsubsidized		Total Subsidized		Total Nonsubsidized	
	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations	Total Loans	Total Obligations
NORTH CENTRAL												
Illinois	2,024	$ 58,299	774	$ 16,392	1,942	$ 60,689	390	$ 6,134	2,149	$ 68,279	289	$ 4,888
Indiana	2,309	61,625	593	12,941	1,891	52,284	380	7,157	1,826	48,458	159	2,384
Iowa	1,757	56,853	713	15,071	1,630	57,203	284	5,242	2,197	85,849	195	2,660
Kansas	826	19,960	620	11,108	832	21,456	309	4,620	709	18,231	270	4,228
Michigan	2,322	67,490	866	21,088	2,037	60,730	435	8,922	1,754	38,104	211	3,159
Minnesota	1,089	36,436	485	12,511	1,303	48,968	242	5,500	1,131	44,350	186	4,389
Missouri	2,463	65,394	895	18,767	2,784	78,670	447	8,244	2,386	71,279	333	5,593
Nebraska	864	24,993	331	7,052	735	22,435	197	3,773	647	21,648	113	2,197
North Dakota	483	16,118	223	4,988	590	22,152	148	3,102	919	38,026	129	3,033
Ohio	977	30,100	505	12,130	1,752	63,088	245	5,184	1,475	55,859	95	1,495
South Dakota	852	23,221	326	5,515	674	19,284	121	1,330	541	15,131	101	1,247
Wisconsin	1,429	46,503	528	13,825	1,465	49,433	251	5,398	1,581	53,524	155	3,166
Total	17,395	$ 506,992	6,859	$ 151,388	17,635	$ 556,392	3,449	$ 64,606	17,315	$ 558,738	2,236	$ 38,439
WEST												
Alaska	192	$ 10,342	39	$ 1,726	102	$ 6,206	2	$ 63	169	$ 12,121	2	$ 147
Arizona	972	24,961	233	4,901	745	18,870	159	2,632	682	23,573	70	1,770
California	2,231	83,970	409	13,920	2,407	96,236	150	4,571	2,557	105,508	79	2,200
Colorado	734	23,790	257	6,519	758	25,706	136	3,173	753	25,840	146	3,081
Hawaii	206	9,708	110	4,910	175	8,837	84	2,958	268	14,385	19	712
Idaho	1,110	28,422	226	4,972	940	26,288	165	3,287	811	20,180	158	2,430
Montana	475	14,800	167	3,606	535	16,733	106	2,435	648	20,520	80	1,665
Nevada	207	8,197	53	1,748	150	5,964	19	525	202	8,874	17	590
New Mexico	626	18,038	184	4,170	558	17,901	112	2,424	618	20,928	105	2,541
Oregon	1,549	54,737	246	6,697	1,363	50,510	74	1,804	1,315	48,507	38	931
Utah	711	24,643	228	6,582	602	20,785	134	3,466	649	22,291	68	1,747
Washington	901	30,686	223	6,568	1,020	39,449	125	3,556	1,164	48,859	46	1,317
Wyoming	215	7,803	125	3,992	228	8,545	59	1,463	513	21,980	70	2,295
Total	10,129	$ 340,097	2,500	$ 70,311	9,583	$ 342,030	1,325	$ 32,357	10,349	$ 353,566	898	$ 21,426
U.S. Territories[1]	4,005	$ 116,717	722	$ 16,877	3,164	$ 98,168	353	$ 6,303	2,483	$ 83,635	195	$ 2,359
Total United States	76,805	$2,220,087	25,918	$ 604,404	74,638	$2,327,528	12,603	$ 256,077	70,034	$2,300,000	8,848	$ 176,417

1 - Includes Puerto Rico, Virgin Islands and West Pacific Territories

Source: Department of Agriculture, Farmers Home Administration. Compilation and analysis by NAHB Economics Division.

SHORT RECESS

Senator COCHRAN. That was the last witness to discuss the housing programs of the Farmers Home Administration, We are now going to hear from a series of witnesses who will talk about REA programs. However, I think before we begin that, we will take about a 2-minute recess.

NATIONAL TELEPHONE COOPERATIVE ASSOCIATION

STATEMENT OF DAVID C. FULLARTON, EXECUTIVE VICE PRESIDENT

Senator COCHRAN. If the committee will come to order, we will resume our hearing.

Our next witness is Mr. David Fullarton, executive vice president of the National Telephone Cooperative Association.

Welcome. We appreciate your coming to testify before the committee today.

Mr. FULLARTON. Thank you very much, Mr. Chairman.

Senator COCHRAN. As you may have heard, I have asked other witnesses to try to limit their comments, so we can get everybody before the committee today who wants to testify.

Mr. FULLARTON. I would be happy to do that.

I have with me today Mr. Michael Barry, who is director of our Governmental Affairs Division. Mr. Barry is here to answer questions.

For the record, I am David C. Fullarton, executive vice president of the National Telephone Cooperative Association, and I would appreciate it if my prepared statement is made a part of the record and I be allowed to summarize.

[The statement follows:]

STATEMENT OF DAVID C. FULLARTON

SUMMARY

Mr. Chairman and Members of the Subcommittee. My name is David C. Fullarton. I am the Executive Vice President of the National Telephone Cooperative Association (NTCA). NTCA is a national trade association representing more than 400 locally owned and operated small telephone systems located in rural areas of over 40 states.

I appreciate the opportunity to testify concerning the Rural Electrification Administration (REA). Few rural telephone systems would have been able to extend service to sparsely settled areas without the capital made available through the programs of REA.

NTCA would like to express its appreciation to the subcommittee for its long-standing support for REA and for many programs of vital importance to rural America. We would also like to express our disagreement with the Administration's recommendations for FY 1984 lending authority for REA and the Rural Telephone Bank (RTB) and for elimination of the recapitalization of the RTB.

Furthermore, we are disturbed about the decline in REA personnel in the Telecommunications Engineering and Standards division. Since the outset of the telephone program this division has played a crucial role in maintaining high technical quality in rural telephone service. A letter concerning this problem written recently to REA Administrator Harold Hunter by Horry Telephone Cooperative of South Carolina has been included as Appendix I to this testimony.

The telephone industry is in the midst of a tremendous upheaval. Due to changes in the industry and in regulation under the Federal Communications Commission, the future of universal telephone service is precarious. The rates for rural telephone service threaten to skyrocket. We believe that the continued presence of REA and its funding programs will be a critical element in maintaining the rural telephone network, and that the policies set by this Subcommittee and by the Congress as a whole will "make or break" service to thousands of rural subscribers. In short, this is no time to cut back the REA program.

Instead, we recommend that the Subcommittee restore the FY 1983 lending levels to the REA program, as in the tables below.

	NTCA FY 84 LEVELS (millions)	ADMINISTRATION FY 84 PROPOSAL (millions)
Insured Loan Program	$ 250 - 325	$ 75
Rural Telephone Bank	$ 185 - 220	$ 185
Loan Guarantee Program	$ 145	$ 125
RTB Recapitalization	$ 30	-0-

The Importance of REA to Rural America

When the REA Telephone Loan Program was established in 1949, only 38% of the nation's farmers had telephone service. Almost all of that service was on party lines. Today, approximately 95% (REA figures) of rural farms and residences served by REA borrowers have telephone service. About 83% of that is single-party service. However, it is still not profitable to serve sparsely settled areas. The capital costs are higher, the number of customers is lower and the subscribers' average income is lower than in metropolitan areas.

Rural telephone companies continue to show lower profitability and higher debt:equity ratios which preclude their ability to borrow funds from commercial lenders. Whereas most commercial lenders require a debt:equity ratio of approximately 40%, most REA borrowers show debt:equity ratios of 25%. Whereas most commercial lenders require a borrower to show earnings which exceed his interest payments by 200-300%, most REA telephone borrowers' earnings exceed interest payments by less than 50%.

Clearly, rural telephone systems are not yet able to borrow from commercial sources. Furthermore, changes in the telephone industry, which I will address later, suggest that this is a particularly inauspicious time to allow cuts in REA lending authority.

Yet, this is exactly what the Administration has proposed. Administration witnesses before Congressional committees this year have implied that demand for REA loans does not justify raising the loan levels beyond the Administration's FY 1984 request. However, at the same hearings, Administration witnesses admitted that there are about $600 million worth of backlogged loan applications at REA!

Ironically, the Administration proposal to eliminate the $30 million recapitalization for the Rural Telephone Bank in FY 1984 will increase the demand for funds from the insured loan program. The recapitalization reduces the interest rates of RTB loans. The RTB loan funds are then blended on a case-by-case basis with loan funds from the Revolving Fund to produce a blended interest rate that REA judges to be the maximum that the telephone system can afford to pay. Thus, the average interest rate paid on REA and RTB loans is about 7-8% (1981 Statistical Report, Rural Telephone Borrowers). If the interest rates in the RTB are higher, then more monies from the Revolving Fund must be used to produce an affordable blended rate.

Administration representatives have stated that REA borrowers care more about the availability of loan funds than about the cost, or interest rate. Based on our experience, this is simply untrue. Telephone systems must pass on to their subscribers the cost of the monies used for capital construction, so any increase in the interest charges for loan funds are directly reflected in rural telephone rates. While NTCA members are indeed concerned about the availability of loan funds, they are also concerned about the already high costs of rural telephone service and the effects of raising local rates still higher.

An illustration of the effects of interest rates on rural telephone rates is reflected in a table provided by Grand River Mutual Telephone Corporation in Princeton, Missouri.

Interest rate on loan	Basic monthly local rate
5%	$ 12.00
6%	$ 13.45
7%	$ 14.90
10%	$ 19.25

It should be noted that the national average basic monthly local rate is about $10 per month, and that even at 5%, the interest on the REA loan would cause rural customers to pay more than the national average. When compounded with the newly devised long distance access charge, such increases in basic monthly rates could boost overall rural telephone rates to $25 per month or more. NTCA members are deeply concerned that many of their customers and in particular, the low-income and elderly, will be forced to drop telephone service. For the first time since the advent of the REA telephone program in 1949, our nation may be shifting away from universal telephone service and losing subscribers.

New REA Policies Needed for the Information Age

Another problem arises from REA's own policies. Rural telephone systems are exploring CATV, provision of PBXs, answering services, and other communications systems in order to bring the new information technologies to rural businesses and farms. Diversification also will strengthen financial stability and enable small telephone systems to continue to give reasonably priced telephone service to their subscribers.

REA follows utility industry practice and holds first lien on all property purchased with REA money. Its loan contracts contain an after-acquired clause which includes all realty and personalty, regardless of who provided the money to purchase that property. REA stands in first position as long as there is an outstanding REA loan. While REA claims that it will waive this first lien to allow a borrower to purchase telephone plant with non-REA funds, the agency has no written procedure for doing so.

This has become an acute problem in this age of deregulation and competition. Under recent court and FCC decisions, telephone companies may now provide new services and equipment on a deregulated basis. The RE Act allows for the provision of such services by REA borrowers and in many cases for REA funds to be used to purchase the necessary equipment. However, current REA policies do not reflect this aspect of the Act.

For example, some of our member systems have been approached by potential customers who want a PABX. This is an inside telephone network, similar to a Centrex system. A PABX is a deregulated telephone service. REA policy will not provide funds to purchase the equipment. However, REA claims first lien on these new PABX systems, so that private lenders are not willing to lend funds, either.

The situation with CATV and other non-telephone communications services is similar. REA maintains strictly its first lien on all borrower acquisitions and has not been willing to make accommodations in the past few years.

These restrictions are enforced despite the policy of this Administration to induce REA borrowers to find private sources for their capital needs. As long as REA holds first lien on all after acquired property, even if purchased without REA funds, borrowers who could afford to pay commercial rates will be unable to get them.

For over a year, NTCA has discussed with the Department of Agriculture and REA the removal of these loan restrictions. However, the Administration has not issued any written procedures or made any policy changes to waive the after acquired clause and other lien restrictions on REA borrower property. At its annual meeting in January, 1983, the full membership of NTCA approved a resolution recommending certain changes in the REA program. The first priority among the changes is to alter REA's lien policies. This resolution is attached to this testimony as Appendix II.

Despite repeated Congressional inquiries regarding alterations to its lien restriction policies, the Administration has not set a deadline for making any policy changes. We urge the Subcommittee to press the Administration for these important policy changes.

Rural Communications in the Deregulated Era

Developing financial strength through diversification will become more important for small telcos, since telephone deregulation is eroding traditional telephone revenue sources such as customer premise equipment and inside wiring. In December, 1982, the Federal Communications Commission in Docket 78-72 altered the traditional system of division of telephone industry revenue that has contributed much support to high-cost rural telephone systems. The Commission established an access charge mechanism under which all customers will pay a new monthly charge in return for having the same access to the long-distance telephone network as they now have without an access charge. This new charge will be an addition to the local service rate and to long-distance charges on a per-call basis. The new system will be phased in over seven years, beginning January, 1984. By 1991, all customers will pay an average access charge of about $8 per month and rural customers, probably even more.

The FCC also established a mechanism intended to help keep rural access charges from rising unreasonably. The details of this "safety valve" mechanism are to be decided this spring by a Joint Board comprised of three FCC commissioners and four state public utility commissioners. NTCA has recommended to the Joint Board that the "safety valve" mechanism (called a Universal Service Fund), be pegged to the difference between rural telephone rates and those in lower-cost urban areas. The mechanism would work in cases where rates would rise above 110% of the national average rate for similar service. However, the proposed plan of the Joint Board staff will help only some rural customers. Many others will pay substantially more than their metropolitan counterparts.

The new access charge is expected to cause considerable dislocation among rural telephone systems and their customers. Telephone systems which are diversifying their services can share costs through joint operations to provide reasonably priced local telephone service.

At recent hearings before the House, Administration witnesses repeatedly suggested that rural telephone systems are investing in these new communications technologies instead of extending basic telephone service. This is not the case. NTCA systems continue to extend and improve telephone service. They seek to provide other services which meet the demands of their subscribers' telecommunications needs and also strengthen their financial base.

Also, rural telephone systems are often the only ones interested in providing these information services to their customers. An example is the development of cable television in rural areas. Commercial cable operators are more interested in serving the more lucrative densely populated towns. Surrounding farm areas are often not offered service due to expense. Telephone companies, on the other hand, when provided with a CATV franchise, seek to serve as many people in the rural towns and surrounding area. This is possible because serving the more profitable town makes serving the countryside financially feasible.

However, once a franchise has been granted for just the town, it is unlikely that any enterprise would find serving the countryside alone a viable project.

PRESERVATION OF THE REA REVOLVING FUND

As the Subcommittee members are aware, high prevailing interest rates have caused an imbalance in the REA Telephone and Electric Revolving Loan Fund. Higher interest rates are charged for Treasury borrowings than the Revolving Fund interest rate (5%). If the gap continues, the fund's interest account will be depleted beginning as early as 1986. REA telephone and electric borrowers have joined forces to examine the problem.

The resolution alluded to earlier as Appendix II contains the recommendations of the NTCA membership on changes to be made in the Revolving Fund. We believe that the changes should be made after careful deliberation.

We look forward to providing the Congress with any assistance which may be needed to ensure a stronger REA program. We have faith that the support of this Subcommittee and others in the Congress will continue and that the necessary changes may be made to the Revolving Fund in order to preserve this important source of capital for rural utility development.

CONCLUSION

Without REA programs, few rural telephone systems would have been able to extend affordable service to sparsely settled areas of the nation. Rural telephone service continues to be more costly to provide than does service in urban areas. Recent regulatory and industry changes will increase the rates for telephone service in rural areas. The cuts in REA and RTB lending proposed by the Administration will have an escalating effect on rural rates, pricing many subscribers out of the market and jeopardizing universal telephone service.

In recent years, rural telephone systems have made efforts to diversify services they offer, both to provide a new, Information-Age service to their subscribers and also to secure the system's financial future. Such moves are made in order to enable telcos to continue to provide reasonably priced telephone service in high-cost rural areas. However, REA lien policies have crippled rural systems attempting to diversify. Despite lengthy negotiations with NTCA, Administration officials have not produced changes in policies to resolve this problem.

NTCA urges the Subcommittee to restore the REA lending authority cut by the Administration, to restore the $30 eliminated from recapitalization of the Rural Telephone Bank in FY 1984, and to refuse to endorse the Administration's rescission of 76% of the FY 1983 recapitalization of the Bank.

On behalf of the members of NTCA and the millions of rural subscribers they serve, I would like to thank the Subcommittee for the opportunity to testify today. We appreciate your efforts to ensure that rural America continues to have the modern telecommunications services so necessary for its development.

SUPPORT FOR REA TELEPHONE PROGRAM

Mr. FULLARTON. We very much appreciate the support of this subcommittee for the REA telephone program over the years. The program has been of tremendous value and benefit to rural America, and it has consistently met the objectives for which it was created. The REA telephone program continues to be needed if the telecommunications network is to continue to serve the needs of rural Americans.

Rural telephone systems are not yet able to borrow from commercial lending sources, and technological industry changes dictate the need for greater infusion of long-term debt capital, not less, as recommended by the administration.

Ironically, the administration's proposal to eliminate $30 million recapitalization for the rural telephone bank increases the needs in the lending program it proposes to reduce. We believe that the rural telephone systems have, along with REA, responsibilities for the future of rural telecommunications and the viability and reasonableness of the REA lending program.

We also desperately need the support of the subcommittee and Congress to assure program effectiveness. For our part, we are studying alternatives for future financing, as is indicated in appendix 2 of my prepared statement. We are also undertaking massive programs to assist rural telecommunications systems to meet the drastic change in the industry and also to diversify their services and activities to improve their internal financial strength.

REA POLICIES

We do not believe REA is doing as much as it can, nor as rapidly as it could, to enhance program effectiveness. There are particular problems, for example, lien accommodations, as detailed in my prepared statement. We urge the subcommittee to direct the administration to act expeditiously in this matter.

REA REVOLVING FUND

As the subcommittee is aware, high interest rates have caused an imbalance in the revolving fund. If the trend continues, there could be a deficit in the interest account as early as 1986. We are working with the electric borrowers in this regard, and future financing considerations focus on this issue as well as others.

NTCA RECOMMENDATIONS

In conclusion, we urge the subcommittee to maintain the REA telephone program at current levels, by first rejecting the administration's proposals for loan level reductions and, second, by restoring $30 million recapitalization of the rural telephone bank. Finally, we thank you for refusing to endorse the rescission of 76 percent of the fiscal year 1983 rural telephone bank capitalization.

Mr. Chairman, we sincerely appreciate the support you have shown for this very valid and viable program over the years. I can only tell you we continue to need that support desperately. Thank you.

Senator COCHRAN. Thank you, Mr. Fullarton.

What is the practical impact on telephone users out in the rural areas if the Congress goes along with the reduction in the rural telephone bank and if we refuse to recapitalize that $30 million?

Mr. FULLARTON. Mr. Chairman, the rural telephone bank lending program is a program where the interest rate is a result of infusion of different types of capital. Capitalization by the Federal Government is a capitalization of 2 percent. That is mixed with borrower-provided capital, as well as other debt capital from the Federal Government at the rate of borrowing for the Federal Government. So if the capitalization is reduced or eliminated, it jacks up the interest rates of that supplemental financing program.

Senator COCHRAN. And that ends up being passed along in higher monthly rates to consumers?

Mr. FULLARTON. Yes, sir, it does.

Senator COCHRAN. What would you estimate would be the increase in a monthly telephone charge to the average consumer or telephone service if this recapitalization was not approved?

Mr. FULLARTON. It is a difficult question, Mr. Chairman, since it is almost impossible to state an average charge. We have ranges—maximums and minimums—of the effect interest has on overall borrower costs. These costs vary greatly depending upon the density of the system and the time which it was built. The answer to the question would be in a chart of one or two pages. We would be happy to provide that to the committee. There is no overall average.

Senator COCHRAN. That would be helpful.

Of course, I guess what we are talking about is access to credit and cost of credit, and that program and the funding levels that we provide will have a direct impact on the cost of money.

INTEREST RATES

With the interest rates having come down as they have over the past 2 years, do you see that as a reason to justify changes in the funding levels for the telephone program?

Mr. FULLARTON. Not directly, Senator. Interest rates have come down. Cost of new plant investment has gone up over a long period of time. The levels of the program are affected by a variety of circumstances, including the inability of borrowers to go to commercial lenders. I mentioned in my summary that REA, we feel, is dragging its feet on approving lien accommodations. After acquired property falls under the REA mortgage lien. This provides REA first mortgage status, even if you happen to borrow the money for plant additions from somewhere else. If we get some relief in that area and actually get lien accommodations for money obtained elsewhere, that would help reduce the requirement for Government funding.

Also, affecting the level is the broad variety of new, diverse services the borrowers are going to have to undertake if they are going to remain financially viable and compete in a deregulated industry. In many areas our hands are tied by the limitations of the REA program.

Our alternative legislative proposals which are on the Hill this week, although not introduced as yet, provide for other kinds of relief in that regard as well. Program levels have remained the same for about the last 5 years, as you are aware, and we think that we can progress satisfactorily in the future at that level, but we do need assistance at this time.

Senator COCHRAN. Thank you very much for your testimony. We appreciate your being here and helping the committee.

Mr. FULLARTON. Thank you.

[CLERK'S NOTE.—Subsequent to the hearing, the following additional information was provided by Mr. Fullarton:]

EFFECT OF A RURAL TELEPHONE BANK LOAN ON MONTHLY RATES

The attached chart demonstrates the effect on monthly rates of a Rural Telephone Bank (RTB) borrower when the RTB recapitalization is provided and when it is not. The chart shows an increase in the differential with increases in the per-subscriber size of the loan. Thus, if the RTB lends $185 million, and a telephone system seeks a loan averaging $2000 for each of its subscribers, the addition to the basic monthly rates of subscribers would be $2.44 higher if the $30 million were not provided to the RTB. If the loan amounted to an average of $3000 per subscriber, the addition to subscribers' rates would be $3.66 higher without the recapitalization of the RTB.

It should be noted that, due to the way that the RTB operates, this is unlikely to occur in precisely this fashion. The Rural Electrification Administration (REA) judges on a case-by-case basis the highest amount of interest that a telephone borrower can afford to pay, and blends monies from the REA Insured Loan Program with those from the RTB to achieve that interest rate on the loan.[1] Therefore, increasing the cost of RTB funds will probably first require the use of more REA insured funds.

There are a number of negative results of such a shift from the RTB to REA. First, since the insured program involves a greater degree of government support than does the RTB, it seems to be counter to the Administration's aim of reducing telephone borrower dependence on Federal support to force more borrowers to use REA insured loan funds. Furthermore, the added pressure on the insured program will no doubt aggravate the problem of the backlogged applications at REA. Currently, there are nearly $600 million in backlogged applications for REA telephone loans. The subscribers--or potential subscribers--served by these applicants will be forced to wait additional months for improved or new service.

Finally, such delays will add cost to the project due to inflation. Currently, industry watches report an average inflationary increase in telephone construction costs of 7.1% compounded per annum. Thus, the subscribers and the Federal government will be paying more for the same project, due solely to delays in funding the application.

I hope that this information is useful to the Subcommittee.

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1. The standard that REA uses to determine borrowers' ability to pay is one used commonly by commercial lenders. It measures revenues against the interest on the requested loan. Commercial lenders customarily require loan interest rates to be covered by revenues by 200-300%. REA requires interest coverage of 150%.

Monthly Per Subscriber Interest Cost On RTB Loan To Serve New Subscribers*

Investment Per Subscriber	RTB Program Volume (In Millions of Dollars)	
$1000	$185.00	$220.00
Without Class A Stock	$9.17	$9.17
With Class A Stock	7.95	8.14
Difference	$1.22	$1.03
$2000		
Without Class A Stock	$18.34	$18.34
With Class A Stock	15.90	16.28
Difference	$ 2.44	$ 2.06
$3000		
Without Class A Stock	$27.51	$27.51
With Class A Stock	23.85	24.42
Difference	$ 3.66	$ 3.09

*Assumes RTB obtaining debt capital at 11% to mix with new class A Stock, if any.

APPENDIX I

Letter From Robert E. Jamison, Horry Telephone Cooperative, Inc.

September 7, 1982

Mr. Harold Hunter, Administrator
Southeast Area - Telephone
U. S. Dept. of Agriculture
Rural Electrification Adm.
Washington, D. C. 20250

Dear Mr. Hunter:

We have been concerned for some time about the decline in the personnel in the Telecommunications Engineering and Standards Division. The recent announcement that REA was not going to bring in new people in this key area causes me much more concern. We see this Department as a vital element in the continuing success of the REA Telephone Program in the standardization of specifications, designs, materials and construction techniques.

Since the outset of the Telephone Program and, as a basis for long-term financing, the Agency has relied upon the use of various standardization techniques. The benefits of standardization include lower equipment and material costs due to a volume market for manufacturers, lower construction and equipment installation costs by uniform bidding procedures due to the familiarization of contractors with standard construction units and specification requirements, high quality equipment performance and construction due to continuing improvements in performance standards based upon technological advances and borrower telephone company operating experiences, ease of telephone system maintenance due to the familiarity of personnel with standardized practices and materials, and reduced inventory and material stocking costs.

As part of the standardization process, REA uses existing national standards and specifications when they are available and applicable. Where they do not exist, REA establishes them after consultations with equipment manufacturers, consulting engineers, telephone borrowers and other interested parties. The process of specification preparation includes time periods when all interested parties are invited to submit comments for consideration.

Equipment meeting specifications is tabulated in a concise manner in the "List of Materials Acceptable for Use on Telephone Systems of REA Borrowers." It contains items ranging from cable clamps to digital switching systems and promotes uniformity in product quality. Requests from manufacturers for product listings continue at a high pace. The "List" is updated bimonthly for a two-year period and then reissued.

Outside plant construction, which accounts for a very significant portion of available REA loan funds, is administered by means of a standardized outside plant construction contract arranged for unitized construction. In this method, the entire project is subdivided into standardized construction units so that contractors can competitively bid in an efficient manner instead of encountering differing construction requirements for each project. Similarly, the central office switching equipment, transmission equipment and other telephone equipment items are purchased by means of standardized performance specifications for equipment, installation and acceptance testing.

Another important part of the standardization process is the "REA Telephone Engineering and Construction Manuals." These manuals, prepared by REA Engineers, cover all important aspects of rural telephone system design including such subjects as outside plant construction, switching systems, transmission, lightning protection and system design. They are the only complete publications of this type for rural telephone systems and complement the various construction and equipment contracts mentioned previously.

REA specifications as well as the telephone engineering and construction manuals are updated periodically as a result of technological advances and operating experiences of borrowers in providing rural telephone service.

For the introduction of new equipment designs into the Telephone Program REA employs a field trial procedure. This is used in situations where no previous performance history has been attained in any telephone company. With this arrangement only a limited number of installations are permitted while the desired operating experiences are attained. If the installations perform satisfactorily over the prescribed field trial period the equipment is then "listed" for general use. If problems are encountered during the trial period the equipment must either be modified to meet specifications or removed from service. This procedure minimizes risks encountered with untried equipment while encouraging developments to reduce costs, improve performance or introduce desired innovative features.

In rural telephony there is need for some equipment designs differing from those needed for more urban areas. In situations of this type, REA encourages manufacturers and developers, largely through the incentive of new business, to design, manufacture and field trial new equipment to better serve rural subscribers. REA staff engineers usually work closely with interested manufacturers and borrowers in field trials of this type by providing guidelines or specifications outlining the expected performance of the equipment under test and by providing technical assistance, especially in the areas of compatibility with other equipment and in design parameters for rural environments. Some examples of developments of this type are electrical cable pair gain devices in the form of rural subscriber carrier systems. Rural subscriber loop transmission design with fine guage cable, electronic loop extenders, electronic subscriber loop repeaters and direct buried telephone cables. These developments which were pioneered by REA are now widely used not only by REA borrowers but by other telephone companies in the United States as well as telephone administrations in a number of countries throughout the world.

REA Engineers actively participate in the development of voluntary concensus standards and their revisions to insure that various standards are in the best interests of rural telephone borrowers and their subscribers. The Agency is represented on such vital "Steering Committees" as the American National Standards Institute (ANSI), Electrical and Electronics Standards Management Board (EESMB), and the Institute of Electrical and Electronics Engineers (IEEE) Standards Board, as well as IEEE Transmission Systems and Fiber Optic Systems Technical Committees and a number of other committees to develop specifications for various industry organizations. Of particular significance is REA's contribution to the National Electric Code (NEC) and the National Electric Safety Code (NESC) for the safe construction of both power and communication facilities.

REA conducts telephone engineering symposia at about two-year intervals to update consulting engineers, telephone system managers, telephone craftspersons, state utility commission engineers and others on specifications and other standardization activities.

REA standards and specifications of various types have been adopted by some government agencies as well as telephone administrations of a number of foreign countries.

REA is the only government agency providing rural telephone systems with overall engineering and construction standards and specifications.

We can expect a deterioration of the quality of service and higher service rates in rural areas if the REA engineering and construction standards did not exist.

We certainly hope that you would concur in our reasons for making this Department a very strong arm of REA by bringing in additional qualified staff engineers.

Very truly yours,

Robert Jamison

Robert E. Jamison
Manager

APPENDIX II

Resolution of National Telephone Cooperative Association

FINANCING FOR RURAL TELECOMMUNICATIONS

WHEREAS, pursuant to resolutions on such subjects as REA's general fund policy, alternate sources of financing, and financing for purposes not included in the Rural Electrification Act ("non-Act" purposes), adopted by the NTCA membership at its 28th Annual Meeting in 1982, the NTCA Board appointed a Future Financing Committee to study these and related problems, and

WHEREAS, the Future Financing Committee studied these and related matters, meeting with representatives of other national telephone associations and the NRECA Committee on Financing for the Future, and made a number of recommendations which were adopted by the NTCA Board at its November meeting, and

WHEREAS, these recommendations are of vital interest to the rural telecommunications systems in an environment of increasing competition and deregulation as well as continuing attacks on the amounts and purposes for which Federally supported financing should be made available,

THEREFORE, BE IT RESOLVED that:

1. NTCA should give priority attention to obtaining changes in REA's policies on general funds and lien accommodations in order to facilitate the diversification of borrowers' operations in a competitive environment and the obtaining of funds from

various sources for both Act and non-Act purposes; and, if necessary, seek remedial action through the legislative and judicial processes,

2. The Rural Electric and Telephone Revolving Fund should be divided into separate electric and telephone subaccounts, each subaccount reflecting the assets, liabilities, income and expenses pertaining to the particular program,

3. The telephone subaccount in the Revolving Fund should be balanced by periodic adjustments of the interest rate or rates applicable to new REA insured loans to a figure which will hold the Fund's telephone subaccount in balance while providing an annual insured program as set by Congress of at least $300 million,

4. Because some rural telephone systems would have problems in achieving the objectives of the Rural Electrification Act if they had to pay the single rate needed to keep the fund in balance, authorization should be obtained for borrowers which have experienced extreme financial hardship or other specified criteria to receive loans at less than the standard rate,

5. The notes due the U.S. Treasury beginning in 1993 should be converted into permanent capital of the Revolving Fund's electric and telephone subaccounts,

6. The REA loan guarantee program, including access to the Federal Financing Bank, should be retained in essentially its present form,

7. The use of tax-exempt bond financing for pollution control, cable television, and other purposes should continue to remain available to electric and telephone systems and even expanded,

BE IT ALSO RESOLVED, that the NTCA Future Financing Committee and the NTCA Staff (a) explore the potential for obtaining loans from the National Rural Utilities Cooperative Finance Corporation (CFC) and also for developing a new lending organization (for both REA borrowers and eligible rural systems which have not borrowed from REA) to finance "non-Act" purposes as well as "Act" purposes for which REA funding is not made available under administrative policies and (b) vigorously pursue legislative changes in the loan programs administered by REA to make them more responsive to the needs of today's rural telecommunication systems, and

BE IT FURTHER RESOLVED, that, in coordination with, and mutual support of, other telephone organizations and NRECA, NTCA should seek legislation as necessary to accomplish the above objectives, and

FURTHER RESOLVED, that the NTCA staff develop optimum corporate structures for different types of systems to facilitate financing of diversified operations, taking into consideration REA's restrictive policies on general funds and lien accommodations, tax consequences, need to limit economic risks, making optimum use of existing resources, etc.

NATIONAL REA TELEPHONE ASSOCIATION

STATEMENT OF A. HAROLD PETERSON, EXECUTIVE DIRECTOR AND COUNSEL

ACCOMPANIED BY JOHN F. O'NEAL, ASSOCIATE COUNSEL

Senator COCHRAN. Our next witness is Mr. Harold Peterson, executive director and counsel of the National REA Telephone Association. He is accompanied by John O'Neal, associate counsel.

Mr. PETERSON. Thank you, Mr. Chairman. I am A. Harold Peterson, executive director and counsel for the National REA Telephone Association. I am accompanied by Mr. John F. O'Neal, our associate counsel.

I ask, Mr. Chairman, that our statement be placed in the record and that I be permitted to summarize a couple of points.

[The statement follows:]

STATEMENT OF A. HAROLD PETERSON

Mr. Chairman, Members of the Committee:

When we made our appearance before this Committee a year ago we discussed the unprecedented turmoil that was occurring in the telephone industry. The events of the past year have left us with no less concern today than we had a year ago. The bottom line question which remains unanswered is: Will the people of the United States continue to have universal telephone service at reasonable rates? Whether basic local telephone rates will rise in the new deregulated environment is no longer conjecture. According to informed telephone industry spokesmen, the rates are going to double in the big cities. Our concern is what will future basic telephone rates be for the customers who are served by the more than 1,000 REA-financed telephone companies throughout rural America. We know that this Committee shares that concern. A vital ingredient in this equation is adequate dept capital at affordable interest rates. We hope that our presentation will assist the Committee as you address the needs of the REA Telephone program for fiscal year 1984.

PROPOSED REA INSURED TELEPHONE LOAN LEVEL UNREALISTIC

The REA insured telephone loan level has been maintained at $250 million a year since 1976, in spite of inflation and a continuing huge backlog of pending loan applications. That fact alone indicates that REA telephone companies have cooperated in helping to keep the credit belt tight. They have acted in a responsible manner. This in itself is most commendable, when you consider what inflation has wrought during those same years. With a backlog of $1 billion of unapproved REA telephone loan applications on hand today, $646 million of which are completed and ready for loan processing, and with REA estimating they will actually make $250 million in insured loans in this fiscal year, it is extremely difficult for us to understand or accept a 70 percent cut in the insured loan level to $75 million for fiscal 1984. In our judgment, such a recommendation seems lacking in both historical perspective and a current knowledge of program needs. Following is a state-by-state summary of the unapproved telephone loan applications on hand on February 28, 1983:

UNAPPROVED REA TELEPHONE LOAN APPLICATIONS ON HAND FEBRUARY 29, 1983

STATE	NUMBER OF APPLICATIONS	$ AMOUNT OF APPLICATIONS	NUMBER OF COMPLETED APPLICATIONS	$ AMOUNT OF COMPLETED APPLICATIONS
AL	12	44,897,000	7	25,241,000
AK	8	31,314,000	5	28,064,000
AZ	-	-	-	-
AR	5	18,862,000	2	4,362,000
CA	6	17,053,300	5	13,053,300
CO	1	4,750,000	-	-
CT	-	-	-	-
DE	-	-	-	-
FL	2	14,100,000	2	14,100,000
GA	9	50,314,850	3	19,249,850
HI	-	-	-	-
ID	6	11,891,999	4	9,791,000
IL	2	1,441,000	1	941,000
IN	3	4,796,000	2	1,796,000
IA	11	22,234,000	5	8,934,000
KS	5	8,537,000	4	4,137,000
KY	2	6,200,000	1	5,000,000
LA	12	54,033,000	8	45,196,000
ME	5	10,835,700	4	8,835,700
MD	-	-	-	-
MA	-	-	-	-
MI	8	27,281,500	6	20,281,500
MN	11	15,965,000	5	6,490,000
MS	4	26,700,000	3	18,200,000
MO	7	66,831,600	7	66,831,600
MT	4	13,605,000	1	6,648,000
NE	8	17,686,250	7	14,636,250
NV	2	5,295,000	2	5,295,000
NH	1	2,205,000	1	2,205,000
NJ	1	6,000,000	-	-
NM	5	27,152,000	2	16,310,000

STATE	NUMBER OF APPLICATIONS	$ AMOUNT OF APPLICATIONS	NUMBER OF COMPLETED APPLICATIONS	$ AMOUNT OF COMPLETED APPLICATIONS
NY	12	10,584,000	3	5,220,000
NC	8	50,661,900	6	45,411,900
ND	2	5,000,000	1	2,000,000
OH	4	5,038.500	3	4,538,500
OK	8	20,199,550	3	9,560,750
OR	8	34,832,000	8	34,832,000
PA	10	91,792,750	5	67,292,750
RI	-	-	-	-
SC	4	20,553,500	4	20,553,500
SD	7	20,019,250	3	13,819,250
TN	4	27,947,000	1	1,247,000
TX	13	47,843,000	10	40,949,000
UT	5	13,030,000	4	11,130,000
VT	2	1,987,000	1	487,000
VA	1	3,768,000	1	3,768,000
WA	2	3,510,000	2	3,510,000
WV	5	21,168,450	3	18,363,450
WI	6	7,400,000	2	3,600,000
WY	1	1,908,000	1	1,908,000
P.R.	1	55,000,000	-	-
GUAM	1	15,283,000	-	-
SAIPAN	1	12,211,000	1	12,211,000
	245	$979,717,100	149	$646,000,300

RURAL TELEPHONE BANK NEEDS INCREASED CAPITAL

Congress established the Rural Telephone Bank in 1971. The rationale was that a supplemental source of financing should be provided for REA telephone borrowers who could afford to pay a higher rate of interest, thus relieving the pressure on the lower interest direct (now insured) loan program. It has proved to be a highly successful institution. In 1981 the Congress authorized government purchase of an additional $300 million of Class A stock from the Rural Telephone Bank in the amount of $30 million per year for ten years. Each of these increments is vital to the full capitalization of the Bank thus, enabling more and more insured program borrowers to graduate to Bank fundings. This Committee and the Congress as a whole has recognized the essential nature of this capitalization process by providing full funding for each of the first two fiscal years, 1982 and 1983, despite efforts by the Administration to rescind. Now, the Administration proposes to eliminate funding entirely for fiscal year 1984. We are distressed over this development. The purpose for government purchase of Class A stock in the bank is to attain a lending rate somewhere between the direct (now insured) lending rate and the market rate. The infusion of the $30 million per year into the bank permits the bank to reduce its interest rate by as much as 1.25 percent as it did in January 1982. This enables more borrowers to be weaned away from the five percent insured rate. In our judgment the Rural Telephone Bank is the cornerstone of financing for REA telephone borrowers and hopefully, will be the ultimate institution to provide their debt capital needs. The bank's capital strength is a vital factor in this process.

We respectfully request that the Committee appropriate $30 million for government purchase of Class A stock in the Rural Telephone Bank for fiscal year 1984.

CONCLUSION

We respectfully urge the committee to set the REA telephone loan levels for fiscal year 1984 as follows:

Insured: not less than $250 million nor more than $325 million";
Rural Telephone Bank: $185-220 million;
Guaranteed loans: $125-145 million.

We request that $30 million be appropriated for government purchase of Class A Stock in the Rural Telephone Bank in fiscal year 1984.

The economic and social benefits that the REA telephone program has brought to rural America have far exceeded the cost to our government. In its 34-year history there has never been a default on any of the 6.6 billion dollars of telephone loans made. We know of no other federal program that can boast such a record. While we are extremely proud of this record, we want the Committee to know that this would not have been possible without the dedicated bipartisan leadership of this Committee over the years. For this we are extremely grateful and wish to thank you.

INSURED TELEPHONE LOAN LEVEL

Mr. PETERSON. First of all, Mr. Chairman, I want to concur in the statements that Mr. Fullarton has just made on behalf of the National Telephone Cooperative Association. We work very closely with them, as we do with the National Rural Electric Cooperative Association, and everything that Mr. Fullarton has indicated to the committee in his presentation is concurred in by us.

I would like to mention the importance, first of all, of maintaining the insured level of $250 million. It has been maintained at that level since 1976. In spite of all of the inflationary pressures that have existed in the timeframe 1976 to date, we have been able to live with that kind of a loan level. We have not asked for any increases, because we appreciate the problem the Federal Government has concerning the debt. We think that we have acted in a very responsible manner in trying to maintain that level.

If you will notice on page 2 of my prepared statement, you will see a compilation of all of the unapproved loan applications on hand on a State-by-State basis. I noticed that when the administration was presenting its testimony, you specifically asked what that was, and these we are able to furnish today. It is very significant when you look at the nearly $1 billion of unapproved loan applications, that $646 million of those are all ready for loan processing. That means the area coverage surveys have been completed, and those loans are ready to be processed by REA.

Senator COCHRAN. Does this mean that even if we approve a funding level of $250 million, we are still going to have almost twice that out there unfunded? Is that right?

Mr. PETERSON. That is correct, Mr. Chairman. My judgment is, you will see, that $1 billion unapproved loan application figure increase. The reason it has decreased from the $1.5 billion it was 1 year ago when we testified, is due mainly to two reasons. First of all, about $145 million of loans have been rescinded or not asked for. The balance is accounted for by the concern that exists among REA telephone companies today in the atmosphere we now live, not knowing what is going to happen on January 1, 1984, when the divestiture of the Bell system takes place. I think that is a basic reason why these companies are not making any moves. We are very concerned about what is going to happen in rural America ratewise when January 1, 1984, comes to pass. We have been telling our story on the Hill and to the FCC for about 4 years, and I think suddenly, and finally, people realize rural America stands to suffer greatly. I am very encouraged by what we hear from Members of Congress. They say they will watch it closely and monitor it, so rural America does not lose the benefits that have been achieved by this program in its 34-year period of its history.

DIVESTITURE OF BELL SYSTEM

Senator COCHRAN. What is the status of that situation? I was asked a question yesterday by a person from my State who happened to be in my office. Is there an assessment that is being ordered by the FCC on rural telephone systems that will be passed on to the customers?

Mr. PETERSON. That is correct.

Senator COCHRAN. Why is that? Is that part of the court decision that was made in the *Bell* case or is it something that Congress has caused?

Mr. PETERSON. That decision was a Federal/State Joint Board decision in an FCC proceeding. It was not a congressional decision.

So that you can have a clearer picture of what we are talking about here, historically, 60 percent of all of the revenues which REA telephone companies derived have come from the toll rates on long-distance calls. That is all going to be eliminated, and we are going into a competitive arena. AT&T is going to compete with other common carriers to provide long-distance service, and the subsidies that used to flow from that kind of service back to the local operating companies is going to be lost. To make up the loss, FCC has, among other things, put an access charge cost on the local telephone to access the network. That, coupled with a very intricate design for rate structure, is going to be facing us starting next year. There is a proposal for a system for compensating those companies who are sitting there with very high cost factors. There is going to be a pool of money provided which is going to be distributed under certain formulas. We have always maintained that if the basic telephone rate in rural America exceeds 110 percent of the national average, then we should be compensated for the loss above that. The Federal/State Joint Board has recommended a 115-percent figure, after which under an intricate process companies will benefit, depending on how much above that 115-percent average they exceed it. For instance, I think the first cutoff is if you are between 115 and 160 percent, you will get so much back, and it goes on up. So, the higher your costs are above the national average, the more protection you will get.

We hope it will work. It is unfortunate that the blame for all this is going to be put upon the Members of Congress, and they had nothing to do with it. But we are encouraged, those to whom we have spoken have told us they are going to monitor this very closely, and they are not going to allow rural America to suffer as a consequence of deregulation.

I guess we have seen what has happened in other areas of deregulation of American economic life. I don't have to recite them here. In practically every one—airplanes are a glaring example—rural America has suffered the most. It costs more to travel between small towns in rural America than between big cities. In the telephone business, the big competition is between high density areas in this country. It might interest you to know in 1976, seven-eighths of all toll revenues were derived from 144 population centers; over 50 percent of it came from 32 centers. So you see where the contest is; it is between big people, big bucks, and big places. Rural America stands to suffer unless it is watched very carefully.

Senator COCHRAN. I think that is a very important point for this committee to remember as we review these funding levels, and your testimony here is going to be very helpful to us. I especially appreciate your getting together the information on the unapproved REA telephone loan applications. I think this illustrates why we do need to make available as much in the way of a loan level as we can, given the constraints of the budget and other realities that we face.

RECAPITALIZATION OF THE RURAL TELEPHONE BANK

Mr. PETERSON. Mr. Chairman, you asked Mr. Fullarton a question as to what would happen in the case of the Rural Telephone Bank if we didn't refinance for fiscal 1984. If you look on page 3 of our statement, you will see what happened in January of 1982 when the first $30 million of class A stock, which the Congress provided, was put into the Telephone Bank. The interest rate was reduced immediately from 12.25 to 11 percent. Now that is very significant, because the rationale behind the establishment of the Rural Telephone Bank was to provide a vehicle whereby borrowers who were more financially able would be able to accommodate to a higher interest rate in the Rural Telephone Bank. In order to do that, they have to meet an interest coverage margin of 150 percent. So that bringing the interest rate from 12.25 down to 11 percent automatically permits more borrowers to be weaned away from the 5-percent rate. You might be interested to know that the interest rate in the Rural Telephone Bank is down to 10 percent today.

Senator COCHRAN. Thank you very much, Mr. Peterson. Mr. O'Neal, we appreciate your coming along. Sorry we didn't have the benefit of your wise counsel at this point, but we know you are available to us, and we appreciate it.

Mr. PETERSON. Thank you, Mr. Chairman.

Mr. O'NEAL. Thank you.

NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

STATEMENT OF ROBERT D. PARTRIDGE, EXECUTIVE VICE PRESIDENT

ACCOMPANIED BY:

- FRANK STORK, GENERAL MANAGER, ASSOCIATION OF MISSOURI ELECTRIC COOPERATIVES
- TOM SHOWS, PEARL RIVER VALLEY ELECTRIC ASSOCIATION, COLUMBIA, MISS.
- ERNIE HOWE, INDIANA STATEWIDE RURAL ELECTRIC CO-OPS
- DON SMITH, CHIEF ECONOMIST, NRECA

Senator COCHRAN. Our next witnesses are representing the National Rural Electric Cooperative Association—Mr. Robert D. Partridge, executive vice president; Frank Stork, general manager of the Association of Missouri Electric Cooperatives; Tom Shows, Pearl River Valley Electric Association; and Ernie Howe, Indiana Statewide Rural Electric Co-ops.

We welcome all of you to the hearing. I have overlooked someone.

Mr. PARTRIDGE. Mr. Chairman, I also have with me our chief economist, Mr. Don Smith.

Senator COCHRAN. Welcome. Please proceed.

Mr. PARTRIDGE. Thank you, Mr. Chairman.

INTRODUCTION OF PANEL

For the record, my name is Robert D. Partridge. I am executive vice president of the National Rural Electric Cooperative Association. The members of our Legislative Committee who are with me have been identified by the chairman, Mr. Frank Stork, the manager of the Missouri Association of Electric Cooperatives, is the chairman of our Legislative Committee; Mr. Tom Shows, manager of the Pearl River Valley Electric Association in Columbia, Miss., is vice president of the Legislative Committee; Mr. Ernie Howe of the Indiana Statewide Association is a member of the committee.

I might point out that one man who has come with us for many years is not here—Mr. Blaine Eaton of the Southern Pine Electric Cooperative in Mississippi. He retired last year, and with his retirement we lost his long tenure as chairman of the Legislative Committee. Mr. Frank Stork has succeeded him.

I should also mention my own plans are to retire about a year from now, and this will probably be my last official appearance on behalf of our association. That being the case, I do want to say how much I have appreciated, over the years, participating in the hearings and the courtesies of the chairman and other members of the committee. I will miss that. But I have always appreciated very much the opportunity to appear before you.

Let me get to the purpose of our appearance here today, Mr. Chairman. It is, of course, the testimony on the authorization for the REA electrification program for fiscal year 1984. Since you indicated my full statement will appear in the record, I shall summarize it.

[The statement follows:]

STATEMENT OF ROBERT D. PARTRIDGE

Mr. Chairman and Members of the Subcommittee:

My name is Robert D. Partridge. I am Executive Vice President of the National Rural Electric Cooperative Association, the national service organization of nearly 1,000 rural electric systems serving consumers in 46 states.

Accompanying me this afternoon are members of NRECA's Legislative Standing Committee. The chairman of that committee is Mr. Frank Stork, General Manager of the Association of Missouri Electric Cooperatives, in Jefferson City, Missouri. Other members of the committee present at this time are: Mr. Tom Shows of Pearl River Valley Electric Association in Columbia, Mississippi and Ernie Howe of the Indiana Statewide Rural Electric Co-ops in Indianapolis, Indiana.

I might point out as a matter of interest to Chairman Cochran and perhaps other members of this panel that this is the first time in many years that another distinguished Mississippian, Mr. Blaine Eaton, is not among those participating in our annual visit with the Subcommittee.

During this past year Mr. Eaton stepped down from his position as manager of Southern Pine Electric Cooperative in Taylorsville, and as chairman of NRECA's legislative committee, to begin a well earned and much deserved retirement.

While on this subject Mr. Chairman, I should add that I, too, will soon be closing out my active duty with NRECA and the rural electrification program, and, as plans now stand, will join the ranks of the retired in early 1984. Since this may prove to be my final official appearance before this Subcommittee, I would like to take this opportunity to express my deep and sincere gratitude to you, Mr. Chairman, to all of your colleagues who currently serve on this Subcommittee and on the full Committee on Appropriations, and to the many other past and present Members of Congress who have been so generous in their support for the rural electrification program.

I also would like to thank you, your colleagues and, of course, the members of the Committee and Subcommittee staff who, through your courtesy and kindness, have made these annual appearances a personal pleasure, and an event which I sincerely have looked forward to each year.

I certainly will miss these visits, but I am equally certain that my successor will be able to look forward to the kind of fair and friendly atmosphere that has always characterized NRECA's discussions of the rural electrification program with this Subcommittee.

We who work in the rural electric program deeply appreciate the support which Congress and this Subcommittee has provided over the years. We pledge our continued best efforts in making proper and productive use of REA financing and the other tools you have given us -- the tools which make it possible for rural electric systems across the nation to keep the lights on and the power flowing to the more than 25-million Americans they serve.

With that, Mr. Chairman, let me move on to the primary purpose of our visit with the Subcommittee today -- presentation of our recommendations for the REA program in the upcoming fiscal year. With your permission, I will submit for the hearing record copies of several resolutions which were drafted and approved by the NRECA membership at our 41st Annual Meeting held earlier this year in Las Vegas, Nevada. These resolutions express positions NRECA has taken on a number of important issues that are within the purview of this Subcommittee, but which time does not allow me to cover in detail during my appearance before you this afternoon.

REA INSURED FINANCING

As in previous years, the NRECA staff has completed a comprehensive Loan Fund Survey to determine the actual capital requirements of rural electric systems during the fiscal 1984 period. Based on the results of this latest survey we believe that meeting the basic and legitimate needs of the program for REA insured loans will require a fiscal 1984 loan program of no less than $850-million. We therefore respectfully urge the Subcommittee to recommend this amount, $850-million, as the minimum or "floor" level for REA insured lending in the next fiscal year.

Our survey also indicates that the requirement for these loans, which are used primarily to expand and improve the power distribution systems needed to serve growing numbers of rural consumers, could be substantially higher then the $850-million minimum, particularly if there is significant improvement in the overall economic conditions in the rural areas REA borrowers serve. For this reason, we ask the Subcommittee to set the maximum or "ceiling" level for fiscal 1984 REA insured loans at $1.1-billion.

In conjunction with this, we ask that the subcommittee provide all appropriate encouragement to REA to make full use of the loan amounts authorized, up to and including the $1.1-billion maximum — particularly since economic recovery, if it comes, will almost certainly bring increased construction and growth in energy demand, both of which will necessitate additional capital investment by rural electrics.

I'm sure the Subcommittee is aware that these "floor" and "ceiling" levels of $850-million to $1.1-billion are unchanged from those which have been in place for the past three years. Even though the inflation rate has abated somewhat in recent months, there is no question that the purchasing power of the loan funds made available during these years has substantially and steadily declined, bringing about a de facto reduction in the amount of new REA investment in rural electrification.

REA GUARANTEED LOANS

Turning to the REA guaranteed loan program in fiscal 1984, NRECA recommends a floor of no less than $3.235-billion, and a ceiling of $4.0-billion for rural electrification purposes. As in recent years, uncertainties regarding regulatory requirements, changes in long term forecasts of consumers' power requirements, plant siting difficulties and other problems have complicated the process of forecasting the need for power supply and similar types of facilities typically financed through loan guarantees. We are confident, nonetheless, that our estimates are a fair and honest assessment of the actual need and demand for these loans.

There are several further points regarding these recommendations that I believe merit the attention and consideration of the Subcommittee. First, I believe it noteworthy that we are recommending a floor on loan guarantees which is nearly $1.4-billion less than the minimum amount which NRECA requested and Congress established for the current fiscal year. This represents a decrease of nearly 30% from the current year's guarantee floor of $4.6-billion, and a drop of more than 42% from the guarantee program's fiscal 1980 peak of $5.66-billion in new commitments.

I would point out also that REA guaranteed financing does not now, nor has it ever, involved any subsidy or cost to the government. All REA guaranteed loans made through the Federal Financing Bank carry an interest rate equal to the FFB's cost of capital, plus an additional fee of one-eighth of one percent. During this past year, I might add, REA instituted an additional fee on these loans to cover any expenses it may incur in servicing the loans made by the FFB.

Now more than ever, the evidence is clear that this program entails no negative impact on the federal budget, and, in fact, through fees charged by FFB and REA, it actually produces profit for the federal government.

OTHER CONCERNS

As we did last year, we must call your attention to several areas of continuing concern regarding REA's administrative policies and practices for the loan guarantees. REA continues to arbitrarily insist that certain portions of some projects -- pollution control equipment, for example — be financed separately and without use of the REA guarantee, even though the full amount of loan guarantees authorized by Congress has not been utilized for several years.

We firmly reject the idea that any set fraction of a major generating or transmission project should be excluded from use of the REA guarantee, nor do we see any reason why certain types of facilities or equipment should be categorically excluded from this type of REA financing — particularly when 100% of the funds could be made available within the ceiling level set by Congress for that year.

We ask the members of this Subcommittee and your colleagues in Congress to be aware of this situation, and to take all steps possible to ensure that REA's policies and procedures in this area are consistent with the spirit of the RE Act, and the intent of Congress.

Another area of REA policy of very serious concern to us at this time is that regarding the supplemental financing which most borrowers must obtain in conjunction with their REA insured loans.

When we appeared before the Subcommittee last year, we called to your attention some very clear indications that significant changes were being contemplated in the percentage of outside financing borrowers are required to obtain, and in the criteria used to determine how much non-REA financing an individual borrower must raise as a condition of its REA loan.

Our analysis at that time indicated that the demand for REA loan funds could be fully met under the supplemental ratios then in existence under which, you may recall, most borrowers must acquire 30% of their capital needs from non-REA sources. We also stated our belief that the existing criteria, based on the individual borrowers' Plant Revenue Ratio (PRR), is an effective and reasonable measure of financial strength, and should be retained.

On this basis we expressed strong opposition to any changes in these policies, in particular since there was little reason to doubt that a major motivation for adjusting the ratios and criteria was to help justify the Administration's proposals for overall reductions in the availability of REA insured loans.

We very much appreciate the fact that the majority of Congress apparently agreed with our assessment of this situation, and that language was included in the fiscal 1983 Agriculture Appropriations legislation which has ensured that the supplemental loan ratios and criteria will remain unchanged for the duration of the current fiscal year.

We are extremely concerned, however, that the Administration is still strongly committed to making arbitrary changes in the supplemental ratios and criteria that will diminish most borrowers' access to REA insured loans.

We continue to believe that unless there are significant and unanticipated changes in either the overall demand for this type of financing, or in the willingness of Congress to establish adequate levels for the insured loan program, the present ratios and criteria should be maintained.

We hope that Congress will agree again this year that no changes should be made that would increase the overall capital cost to rural electric borrowers, particularly since most REA borrowers continue to operate at a considerable rate disadvantage, as compared to other types of utilities.

In further support of this request, I would call to the attention of the Subcommittee the fact that the membership of NRECA recently endorsed a package of far-reaching recommendations for legislative and other changes in REA financing, including some pertaining directly to the insured loan program.

An integral portion of this proposal, I would point out, is a recommendation which would establish a clear and reasonable mechanism for determining the need for future adjustments in the supplemental loan requirements.

Given the fact that there is a strong interrelationship among the various components of our overall proposal, we believe it would be extremely ill-advised for changes to be made in the ratios or criteria until Congress has had the opportunity to evaluate and act upon the full proposal.

We hope, on this basis, that the Subcommittee will include language in the Fiscal 1984 appropriations bill similar to that incorporated in the current year's legislation, mandating the continuation of the supplemental ratios and criteria in effect as of July 15, 1982. We strongly believe that this action is necessary to insure that arbitrary and premature changes in these ratios are not made during fiscal 1984.

Mr. Chairman, I might add that the entire package of financing-related recommendations developed over the past year by the NRECA membership has been discussed informally with many members of this Subcommittee in briefings over the past few weeks, and is now being transformed into specific legislative proposals which, we hope, will be considered during this Congress.

We believe that these proposals, which include provisions for periodic adjustment of the standard interest rate applied to REA insured loans and several other fundamental changes in the current financing program, will substantially strengthen the Rural Electric and Telephone Revolving Fund which serves as the capital source for these loans, and in so doing will help preserve the ability of REA to fulfill its necessary and justified role as the foundation of rural electric financing.

Further, we very sincerely believe that the changes in REA financing we are seeking will be seen by Congress and the public as being reasonable, fair, in the best interest of the rural electrification program, and beneficial to the nation as a whole.

Mr. Chairman, as mentioned at the outset, there are a variety of other issues on which NRECA and our rural electric system members have great interest and concern. I have provided the Subcommittee with a number of resolutions which state our policies and goals in these key areas, including several pertaining to rural development programs which we consider to be of extreme importance to the rural population we serve. I commend these resolutions to the attention of the Subcommittee, and would emphasize that the fact we have not taken time to highlight these issues is in no way meant to indicate a diminished commitment by NRECA in these areas.

In closing, Mr. Chairman, I would once more like to extend our great appreciation to you and the members of your panel for your continuing support and efforts toward maintaining a viable rural electrification program.

If there are any questions which you or the Committee members may have at this time, I would be pleased to answer them to the best of my ability. Thank you.

Financing

Rural electric cooperatives can meet their responsibilities only if they are able to obtain an adequate volume of capital. Their consumer members, in turn, must have fully adequate electric service in order to produce the food and other essentials for a growing nation and its vital foreign trade. Such production combats inflation and contributes toward national self-sufficiency in the supply of energy, which is essential to full employment, national security and many other aspects of the general welfare.

We commend the Congress for authorizing an adequate insured loan program of $850-million to $1,100-million for fiscal year 1983. Data provided by the NRECA Loan Fund Survey indicated that the insured loan demand for fiscal 1984 will exceed $1,100-million. An authorization for fiscal year 1984 of REA insured funds of not less than $850-million nor more than $1,100-million reflects minimum required levels and is entirely consistent with the national objective of reducing inflation and exercising fiscal restraint and responsibility.

We urge the Administration to utilize the full amount of loan authority provided by the Congress and approve loans consistent with the ceiling level. We urge maintenance of the current ratios between REA and concurrent loans. We oppose any effort to deny G&T systems their legal eligibility for insured loans.

Guaranteed Loan Program

REA loan guarantees are absolutely essential for rural electric power supply financing. The REA loan guarantees are uniquely advantageous in providing financing for essential power supply facilities for rural consumers without incurring any costs whatsoever to the government.

Due to the significant uncertainty regarding the timing of power supply project financing, it is extremely difficult to project a precise level of required funding. We urge the Congress to legislatively ensure that adequate financing will be made avaliable for power supply facilities, such as by establishing a "floor" on REA loan guarantees.

We urge REA to make loan guarantees in the full amount of the project and not reduce it by any particular basis or arbitrary percentage.

Federal Financing Bank

The Federal Financing Bank (FFB) has served to coordinate and facilitate government credit activities in an efficient and advantageous manner. It should be continued without change.

FFB funding of REA loan guarantees is mutually beneficial to the government and to the borrower. The borrower saves a substantial 150 basis points in interest costs and the FFB makes about $5-million on each year's guarantee program.

We commend the Congress for mandating the availability of the FFB funding of REA loan guarantees. We oppose any effort to restrict the FFB participation.

Lease Financing

The Economic Recovery Tax Act of 1981 expanded the benefits to taxable entities including investor-owned utilities in the sale and transfer of tax benefits. Rural electric generation and transmission systems were greatly interested in the possibility of using these provisions in order to reduce the high cost of generating facilities, however, the Act did not permit tax-exempt entities to participate in this kind of leasing so only those taxable G&Ts could take advantage of the tax benefits.

The high costs of money today obligates us to take whatever stand we can to minimize the economic impact of new generation and transmission facilities on our rural electric consumers and their communities.

The Congress has enacted restrictive changes in this leasing in the "Tax Equity and Fiscal Responsibility Act of 1982." This bill would prohibit the use of this tax leasing benefit for investor-owned utilities by denying its use for public utility property and to most rural electric cooperatives by additionally denying its use by organizations that have been tax-exempt within five years prior to the lease. Both of these provisions are discriminatory against public utility property and particulary against rural electric cooperatives.

We urge Congress to repeal these discriminatory utility leasing provisions. OMB's prohibition on the use of REA loan guarantees as senior debt capital in lease financing should be eliminated immediately.

REA Financing of Transmission Lines

It was clearly established by Congress in 1973 that all distribution systems would have available for long-term capital needs, REA insured loans for transmission facilities. Once again in language adopted in 1981, Congress made its intent clear that REA should immediately process all distribution loan applications now pending at REA which contain transmission facilities.

We firmly believe that transmission facilities are an integral part of an electric system and must be built if rural electric systems are to provide adequate and reliable service. Clearly, it is the consumer who will suffer if rural electric systems are forced to acquire high-cost capital to finance the construction of these needed facilities.

We, therefore, call on the REA Administrator to reconsider this change in lending policy, and to resume making insured loan funds available to borrowers for transmission facilities and all other valid purposes as set forth in the Rural Electrification Act of 1936, as amended. Should this new policy not be reversed, we call upon Congress to take whatever steps are necessary to ensure that the intent of the Act is fully met, and that REA provides financing for all appropriate and proper purposes within its legislative authorities.

Lien Accommodation

In order to obtain private capital at reasonable rates, it is necessary that REA agree to provide lenders with an accommodation (sharing) of its lien on the property of the borrower.

REA's present policies and practices governing the granting of lien accommodations are overly restrictive. As presently interpreted, these policies make it difficult for a private lender to obtain an acceptable lien accommodation to secure its loan. Further, REA procedures for processing requests for such lien accommodations are extremely time consuming and cumbersome and should be improved.

We encourage the pursuit of both legislative and administrative avenues to require the REA Administrator to revise REA policies to enable private lenders to obtain marketable security interests for their loans by providing adequate lien accommodations.

REA Supplemental Loan Requirements

REA has published a notice of its intent to revise certain aspects of the supplemental loan requirements which have been attached to its insured program since 1973. While specific changes have not yet been proposed, it appears likely that an effort will be made to increase the percentage of non-REA funds some borrowers will be required to utilize, and/or substantially revise the criteria used to determine the supplemental ratio to be applied to each borrower.

Based on NRECA's most recent loan fund survey, however, it appears evident that the demand for loan funds in the foreseeable future can be fully met under the present supplemental ratios, but only if REA makes full use of the loan levels authorized by Congress, which presently are set at $850-million to $1.1-billion for the current fiscal year.

We believe further that the existing criteria for establishing supplemental loan requirements, which are based on the borrower's Plant Revenue Ratio (PRR), has worked well and equitably over the years, and that no workable alternative has yet been developed which would be superior to the PRR approach. Special consideration should be provided to systems serving fewer than two consumers per mile of line.

For these reasons, we strongly oppose any change in the supplemental loan ratios which would require any REA borrower to obtain more than the present maximum of 30% of their loan funds from non-REA sources. We call attention to the fact that an increase in these ratios would accomplish nothing more than to increase financing costs for individual borrowers -- an increase that is especially untimely since most cooperatives' rates already are substantially higher than those of neighboring non-REA financed utilities.

We further believe that the present PRR-based criteria for supplemental loan requirements should be retained as presently established.

Finally, we urge in the strongest possible terms that REA be allowed to make full use of the loan amounts authorized by the Congress in this and in subsequent fiscal years.

FmHA Rural Housing

In its budget recommendations to the Office of Management and Budget for fiscal 1984 through 1988, Farmers Home Administration would transfer a major portion of its rural housing assistance to the states in the form of block grants. Moreover, FmHA recommends drastic reductions in its overall funding for housing. Should FmHA's budget requests be approved, its housing program would be virtually phased out over the next five years. As a result, thousands of residents living in areas served by rural electric systems would, in effect, be denied the opportunity to obtain decent housing.

Since the early 1960s, rural electrics have vigorously supported FmHA's housing and through their national association have assisted importantly in broadening the agency's legislative authorities to increase the benefits of the program. During the past year, NRECA joined with other farm and rural-oriented organizations to successfully oppose legislation designed to implement the block grant approach.

We urge Congress to reject the Administration's efforts to turn the FmHA housing into a block grant program. Also, we urge Congress to provide adequate funding for rural housing next year at approximately this year's level.

New Approaches Needed

The present FmHA Administrator is seeking to de-emphasize and phase out rural development for which his department has the major responsibility delegated to it by the Secretary of Agriculture.

In testimony before Congressional committees and in the press, he has stated that he favors terminating FmHA's business and industrial development loan program and greatly reducing its programs for water and sewer, community facilities and housing.

It is apparent that FmHA is unenthusiastic about implementing the rural development authorities assigned to it over the years. As a consequence, it is increasingly difficult for rural areas and rural people to obtain the assistance which Congress intended them to have. Therefore, we feel it would be best for Congress and/or the Administration to transfer the rural development programs from FmHA to a Rural Development Administration in USDA, leaving FmHA solely a farm loan agency, which it obviously prefers to be.

In addition to restructuring FmHA, new approaches to rural development need to be developed in light of the decrease of the Federal Government's role. These should include more active roles for state and local governments and for local organizations such as rural electric cooperatives.

In regard to financing, there also need to be new approaches which eventually will be independent of the federal government similar to the successful farm credit system. This is the direction the REA program has been following during the last decade, so that today most of its financing comes from non-government sources.

The establishment of a rural development financing institution is now gaining interest in Congress. We urge that Congress consider the feasibility of this and other proposals to supplement or replace federal financing that is being sharply reduced or phased out, particularly for funding of job-creating enterprises and infrastructure.

OMB Budget Proposals for Rural Development

Despite increasing unemployment and underemployment in rural areas, the Office of Management and Budget is proposing massive cuts in rural development programs of the Farmers Home Administration for fiscal 1984. These programs help to create thousands of private sector jobs, as well as to provide critically needed community facilities and modern housing.

In regard to FmHA's business and industrial development loan program, OMB would eliminate it entirely in fiscal 1984. This would shut off one of the few sources of capital for small businesses for rural areas. In addition, OMB would substantially reduce loans for water/sewer and other community facilities. For housing, it would cut FmHA back from $3.4-billion this year to $1.2-billion. Of this amount, $850-million is proposed in the form of block grants to be distributed to the states for them to administer. The funds for FmHA loans are raised in the private market either as insured or guaranteed loans, and as such do not involve government appropriations. Their impact on the federal budget is minimal.

We strongly oppose these OMB proposals and urge the Congress to adequately fund FmHA rural development programs which we believe can assist the Administration in fulfilling its compaign promises to create more jobs for rural people. These programs can also help reduce unemployment.

We also strongly oppose turning FmHA's rural housing into a block grant program which, in our opinion, would insure its demise. We urge Congress to continue the FmHA program in its present form.

REA INSURED FINANCING

Mr. **Partridge.** We have, as we always have, conducted our loan plans survey of our members for borrowing needs at REA and elsewhere. On that basis, we determined the request that we felt would be necessary for the coming fiscal year. Our own members' plans indicate that the need will be, in the case of the insured loan program, a minimum of $850 million and a ceiling of $1.1 billion, the same level as this current year. With respect to the insured loan program, it is our view that the administration's request for a level of $500 million would really turn the clock back to an earlier era of rural electrification. It is not realistic at all, especially when at mid-April REA had a backlog of loan applications on hand exceeding $500 million and has, so far this year, already loaned $440 million, with much of the fiscal year ahead of it. We are faced with the unfortunate prospect that at the end of the current fiscal year the REA loan programs will be no more than the floor provided by the Congress; that is, the $850 million. That will certainly result in a continuing backlog of loan applications on file awaiting action at REA, when the rural areas really do need assurance that an essential resource of electric power will be available to meet their resurgence of agricultural economic activity.

We are asking on behalf of the rural electric system for funding levels that are commensurate with the needs of a real world 1980's rural America, not back to the historic eras of this program, when indeed the authorization was at various times as small as $500 million.

REA GUARANTEED LOANS

For the REA guaranteed program, the source of our funding for generation and transmission facilities, there, too, we have surveyed our power supply systems and find the need will be a floor of $3,235,000,000, which is the budget figure, and the ceiling of $4 billion.

Construction of power supply facilities is down due to the economy and a drop in load growth; therefore, we believe the budget figure, which is $1.4 billion less than the minimum amount which we requested last year and which Congress established, will be adequate—that figure of $3.235 billion as a floor and ceiling of $4 billion.

We have noted in my prepared statement that during the past year REA did impose additional fees on guaranteed loans to cover any expenses that it may have in servicing the loans made by the Federal Financing Bank, which is one-eighth of 1 percent premium over its cost of money. The evidence is clear this program entails no negative impact at all on the Federal budget, and in fact, as a result of fees charged by FFB and REA, it actually produced a modest profit for the Federal Government.

OTHER CONCERNS

We are concerned that REA continues to arbitrarily insist certain portions of some projects—pollution control equipment, for example—be financed separately and without the use of REA guarantees, even though the full amount of loan guarantees authorized by Congress has not been utilized. We respectfully ask the members of this subcommittee and your colleagues in the Congress to take steps to insure that REA's policies and procedures in this area of their lending activity are consistent with the spirit of the REA Act and with the intent of Congress.

Another area of REA policy which is of serious concern to us at this time is that governing the supplemental financing which most borrowers must obtain in conjunction with their REA-insured loans. We appreciated the approval of language mandating that REA loan criteria remain unchanged. We are very much concerned by indications that the administration is still strongly committed to making arbitrary changes in these areas.

As the chairman knows, we have had underway a reexamination of financing for this program which was done in depth last year and on which we are still at work. Our membership did endorse some changes in the program. We include both an insured and, to an extent, the guaranteed loan program, including one change which extended a clear and reasonable mechanism for determining the need for future adjustments in supplemental loan requirements. We think it would be ill-advised for changes to be made in the loan ratio or criteria until the Congress has had the opportunity to evaluate and act on our proposals. We hope the Congress will take steps to see that arbitrary or premature changes in the loan ratios are not made in fiscal 1984.

Mr. Chairman, that concludes my summarized statement. I will be glad to respond to any questions you may have.

Senator COCHRAN. Thank you very much, Mr. Partridge.

I must say I commend you for the restraint in the guaranteed loan program request. I think you recognize the fact we are confronted with some budget problems. While these aren't direct budget programs, they do have an effect on the credit market. I think you certainly can't be faulted for not trying to reduce your request. These minimums all turn out to be maximums in the program.

Mr. PARTRIDGE. Unfortunately, Mr. Chairman, that has been the case, and it has been particularly unfortunate in the case of the insured program, where there is a clear and demonstrated need for somewhere within the authority's minimum and maximum which the Congress has authorized.

Senator COCHRAN. The language that you are requesting is recognized by me to be a very important part of your testimony today. I have read through your statement, and I recognize the seriousness of the situation you face and the fact that your membership has recommended certain legislative changes be made in the program. I hope the Agriculture Committee will take a quick look and start work on that immediately and see if they can't implement appropriate changes so this committee won't have to attempt to write legislation that has to do with these ratios that are an important part of the whole REA program. I would hope we could get around having to do that again this year, but we will certainly consider the need for it at the appropriate time and consult with you and with administration officials before we make any final decision on that part of the request.

As always, it is a pleasure to have you before the committee. I can't imagine that you are really old enough to retire. I don't know what you are intending to do. I hope it is not to stop contributing to the decisions that are made here in Washington. You have been a very vital part of that for a good while now, and it is going to be kind of strange to have REA people up here meeting with Hill people and testifying before the committee and your not being a part of it.

Mr. PARTRIDGE. I appreciate your kind remarks, Mr. Chairman.

Senator COCHRAN. We are going to miss you, and we appreciate the cooperation that you have extended to the committee and me personally during the time I have been in Congress. I thank all of you for being here. I think your contribution to the committee's deliberation is certainly very helpful, and we commend you for the quality of your statement in preparation for this hearing.

Mr. PARTRIDGE. Thank you very much, Mr. Chairman.

THE HUMANE SOCIETY OF THE UNITED STATES

STATEMENT OF MARTHA REBEKKAH HAMBY, DIRECTOR OF LEGISLATIVE ACTIVITIES

Senator COCHRAN. Our next witness is Ms. Martha Hamby, director of legislative activities for the Humane Society of the United States.

Welcome, Ms. Hamby.

Ms. HAMBY. Thank you, sir.

Senator COCHRAN. We are asking witnesses to try to limit their statements to 10 minutes each, so we can get through our entire list of witnesses. We would appreciate your cooperation.

Ms. HAMBY. I think I can do that, sir.

ANIMAL WELFARE ACT

Mr. Chairman, I am Martha Rebekkah Hamby, director of legislative activities for the Humane Society of the United States. It is good to be back this year to talk with you and the rest of this fine subcommittee about the absolute necessity of restoring adequate and decent support for the enforcement of the Animal Welfare Act. Under this law, millions of animals are served by APHIS. APHIS is responsible for enforcing the Animal Welfare Act, and it was passed because of the great public outcry about the need to insure humane treatment of animals used in laboratories, displayed in zoos, raised in puppy mills, appearing in circuses, and handled by animal dealers.

The Animal Welfare Act mandates licensing, registering, and inspections of animal facilities. That is a lot of work to do for all the millions of animals—and literally millions. And the Office of Management and Budget has not given APHIS much money with which to enforce this law. Looking at the funding problem historically, since this is a repeat performance by the Humane Society, the budget for enforcement in 1982 was $4.8 million. Last year, in fiscal year 1983, OMB slashed the budget down a whopping 70 percent, all the way down to $1.5 million, and this fine subcommittee, under your leadership, saw fit to restore that money to the fiscal year 1982 level.

FISCAL YEAR 1984 BUDGET REQUEST

APHIS was able to continue as best it could under the circumstances. But once again, Mr. Chairman, OMB has issued more or less roughly the same figures for funding for APHIS to enforce the Animal Welfare Act. They would have you give another $1.5 million to mount a nationwide program in 1984, when they could barely get by on what they had last year in 1983.

Furthermore, Mr. Chairman, USDA in its budget proposals explained its plans for dealing with this drastic cut in funding by simply saying:

> Regulated dealers, research facilities, exhibits, and carriers along with other primary enforcement activities of animal welfare regulations will be the responsibility of the State, industry groups, humane societies, and individuals.

ENFORCEMENT CAPABILITIES OF STATES

Now, Mr. Chairman, the Humane Society is grateful to be able to come before you today, because we want it made clear to you and the subcommittee that under the law we are not allowed to do these sorts of inspections. Furthermore, in proposing to turn the programs over to the States, no State currently has a program permitting private access to laboratories for purposes of inspection. In addition, only three States have laws on the books protecting lab animals, with no funding available in any of the three States to carry out the inspections.

So while we are flattered that OMB thinks so highly of our enforcement capabilities, we also are excluded from enforcing this law. However, I will say to you we are intrigued by the thought of the opportunity to apply our humane standards; nonetheless, we are forbidden from entering facilities for the purposes of inspecting to enforce the Animal Welfare Act.

So far as the Humane Society is concerned, there can be no doubt that the proposed 70-percent cut in funding ends any semblance of protection for animals as covered by the Animal Welfare Act. Our reviews of USDA's replies to congressional questioning about enforcement indicate last year's plan would go into effect this year if the money is cut. Last year's plans simply said all regular inspections would cease, with APHIS inspecting only after complaints were registered. We find this odd, because if APHIS isn't inspecting facilities and private groups aren't allowed in, we wonder where the complaints could come from. So, clearly, terrible conditions could develop and/or continue without decent funding.

Obviously, OMB has no intention of enforcing this law. The act clearly calls for inspections, and OMB has clearly put APHIS in a position not to supply. If the APHIS money is cut, and if USDA follows through on its plans of ending all regular inspections, then OMB will have effectively repealed this law for the Congress, without anyone ever having to raise a point of order or objection whatsoever.

The Humane Society does not want to see this happen. Neither do our 200,000 constituents who are very concerned about the Animal Welfare Act enforcement issue. USDA found last year that the APHIS funding for animal protection was the No. 1 topic of mail, and I think

Congress found the same, or at least the House did. In terms of constituents' interest in the appropriations bill, at the top of the list of every Member's office was Animal Welfare Act enforcement funds.

When Congress first passed the act in 1966, it was to give minimum standards to lab animals, and later to be amended to include other animal groups, for example, puppy mills, circuses, zoos, marine animals. It was difficult, if not impossible, to conceive the kind of complex use we make of animals today, in Government, in the private industry, and to be able to forecast the accelerated rate with which we would be using them each year. Yesterday's enforcement budget is simply inadequate for APHIS to do its job today.

HSUS' REQUEST FOR ANIMAL WELFARE

Thus, the Humane Society asks you, sir, and your subcommittee not only to restore the funds for the Animal Welfare Act, we ask for a total of $7 million for enforcement activities. Until this opportunity, the peak APHIS funding came in 1982, and that is a long time to stretch money to make those inspections. With this slight increase of $2.2 million, perhaps APHIS can adjust to the rigors they are subjected to by our accelerated use of animals in modern society.

We would appreciate your consideration of the issue and the same serious attention that you and the other members gave it last year. We are deeply grateful for your help then, and we look forward to working with you again.

Senator COCHRAN. Thank you very much, Ms. Hamby, for being here today and presenting this statement to the committee. We recognize that there does seem to be an inadequacy of funds to carry out some of the responsibilities under this law.

Let me ask you this. Do States have opportunities to inspect or enforce laws that are similar in nature to the Federal law on this subject? Isn't this kind of a shared responsibility in some of these cases where we could have State and local officials involved?

Ms. HAMBY. No, sir, not to my knowledge. If there is a State statute, the State is able to enforce.

Senator COCHRAN. I notice that part of your statement deals with dogfighting and cockfighting. I know in many States that this is not legal. So you have local law enforcement officials who are involved in checking on that and enforcing that law. I was just wondering the extent to which some of these other activities are covered by State law and Federal law.

Ms. HAMBY. One of the biggest users of animals are national research laboratories, and private groups are absolutely forbidden from entering and inspecting for the purposes of enforcement of the act.

Senator COCHRAN. Are there no State laws on that subject?

Ms. HAMBY. We have no State laws allowing private access. However, we do have three States that have programs that protect laboratory animals at least in some degree, however minimum, but there is no funding.

Senator COCHRAN. At the local level for law enforcement?

Ms. HAMBY. At the State level.

Senator COCHRAN. We appreciate very much your helping us understand this problem. Thank you very much for your appearance before the committee. Your full statement will be included in the record.

Ms. HAMBY. Thank you.

[The statement follows:]

STATEMENT OF MARTHA REBEKKAH HAMBY

MR. CHAIRMAN, I am Martha Rebekkah Hamby, Director of Legislative Activities for The Humane Society of the United States (HSUS). It is good to talk with you and the rest of this fine subcommittee again this year about the absolute necessity of restoring adequate funding for enforcement of the Animal Welfare Act (AWA). Under this law, millions of animals are served by the Animal and Plant Health Inspection Service (APHIS). APHIS is responsible for enforcing the Animal Welfare Act, an Act of Congress passed because of great public outcry and need to ensure humane treatment of animals used in laboratories, displayed in zoos, raised in puppy mills, appearing in circuses and handled by animal dealers.

The Animal Welfare Act mandates licensing, registering and inspections of facilities. That's a lot of work to do on behalf of these millions of animals. And the Office of Management and Budget (OMB) has not given APHIS much money with which to enforce this law. Looking at the funding problem historically, the budget for enforcement of the Act in FY 82 was $4.8 million. Last year, FY 83, that meager budget was slashed a whopping 70% by OMB, all the way down to $1.5 million.

This subcommittee, in its wisdom and sense of humaneness, restored the FY 83 funding to the FY 82 level, and APHIS continued its duties of inspections, licensing and registering. Now, Mr. Chairman, OMB has given this subcommittee budget proposals for FY 84, and once again, to the dismay of HSUS, we find in rough figures a 70% cut in APHIS funding for enforcement of this important law. OMB would have you appropriate their figure of $1.5 million to run a nationwide program in FY 84, when APHIS could barely carry out its legal mandate on $4.8 million in FY 83.

Furthermore, Mr. Chairman, the U.S. Department of Agriculture, in its Budget Proposals, explained its plans for dealing with the drastically cut funds for enforcement by simply shunning its own duties:

> "...regulated dealers, research facilities, exhibits, and carriers along with other primary enforcement activities of animal welfare regulations will be the responsibility of the States, industry groups, humane societies and individuals...."

The Humane Society, Mr. Chairman, is grateful for this hearing, for we want it made clear that, under the Animal Welfare Act, these groups are not allowed to do such inspections. Furthermore, no state currently has a program permitting private access to laboratories for purposes of inspections. In addition, only three (3) States have laws on the books protecting laboratory animals, with no funding available for inspections.

Now, while the Humane Society is flattered that OMB thinks so highly of our enforcement potential, we, too, are excluded from enforcing the law. However, I will say, Mr. Chairman, that the HSUS is intrigued by the opportunity to apply our humane scrutiny to our nation's puppy mills, zoos, circuses, aquariums, and research facilities. I think it safe to say that we would have loudly objected to the conditions of squalor which have been found all across the country, from the labs of Stanford University to the enclave of Dr. Edward Taub in Rockville. The HSUS deplores institutional cruelty wherever it exists ... we fight to expose and stop it ... but we may not enter such facilities for the purposes of inspecting to enforce the Animal Welfare Act.

Thus, Mr. Chairman, there can be no doubt that the proposed 70% cut in APHIS funding would end any semblance of protection for the animals, as is ordered by the law. Our reviews of USDA's replies to congressional questioning about enforcement indicate that last year's plan would go into effect if the cuts go through this year: All regular inspections would cease, with APHIS inspecting only after complaints were registered. Now, if USDA isn't inspecting those facilities, and the public isn't allowed in the facilities, the HSUS wonders just where those complaints would come from. It has been our experience that animals at such facilities covered by the Act have never, in fact, registered a complaint that was picked up by APHIS.

Obviously, OMB has [illegible] intention of enforcing this law. The Act clearly calls for inspections, and OMB clearly intends to put APHIS in a position not to be able to deliver on this legal charge. If this APHIS money is cut, and if USDA follows through on the plans it stated for the record, then OMB will have effectively repealed this law for you, without anyone in Congress ever having to raise even a point of order.

The Humane Society doesn't want to see this happen. Neither do our 200,000 constituents who think that the AWA standards for animals are, at best, minimum. The USDA has found enforcement of the Animal Welfare Act to be its Number One issue of inquiry from the American public. In addition, there was no issue in the appropriations bill last year that generated more public interest than this one.

When Congress first passed the Animal Welfare Act in 1966--first to give minimum standards of care for laboratory animals, later to be amended in an effort to protect other animal groups--it was difficult, if not impossible, to conceive of today's more complex, accelerated use of animals. Yesterday's enforcement budget is inadequate for APHIS to do the quality job that they are charged with under the law and that the Humane Society and the public expect of them.

The Humane Society asks you, Mr. Chairman, and your subcommittee not only to restore funds for the enforcement of the Animal Welfare Act: We ask for $7 million in enforcement funds for FY 84. Until this opportunity, the APHIS funding had reached its highest level in FY 82. That's a long time ago, in terms of stretching money to make those inspections. With this slight increase of $2.2 million, perhaps APHIS can adjust to the rigors of greatly increased animal use in our society.

I have outlined below some of our concerns about specific groups of animals who potentially would suffer most if these cuts are approved.

1. Laboratory animals. The original version of the Animal Welfare Act (1966) was enacted for the protection of animals used in research, often without benefit of pain-killing drugs. This year, at a time when funding levels are dramatically raised for projects that use animals for testing, OMB is asking you to cut funding for protection.

2. Zoo animals. Violations of public safety standards and cruelty to animals are common complaints served by APHIS.

3. Puppy mills. Kennels which mass-produce puppies for pet shops are often referred to as "puppy mills." Dogs at these mills are often the victims of filth, inadequate shelter, insufficient food

and water, overcrowding, disease, excessive breeding, lack of veterinary care, and general neglect. In 1970, the Animal Welfare Act was amended to require commercial breeders wholesaling dogs to the pet industry to be licensed and regulated by USDA, and to meet humane standards of care for thier dogs. Unfortunately, there are still a large number of substandard breeders in operation due to inefficient complaince procedures and a lack of sufficient funds for enforcement.

4. Dog- and Cockfighting. Dog- and cockfighting is the terribly cruel practice of placing two roosters or pit bull terriers together in an enclosure while cheering spectators and owners watch the animals tear each other apart. In 1976, the Animal Fighting Venture Section was added to the Animal Welfare Act. From the very beginning, USDA has repeatedly advised us that they can not enforce this section because of a lack of money budgeted for this section.

NATIONAL PORK PRODUCERS COUNCIL

STATEMENT OF DAVID CUMMINGS, EXECUTIVE COMMITTEE MEMBER

ACCOMPANIED BY:
CARSON ROGERS, EXECUTIVE COMMITTEE MEMBER
DR. DON VAN HOUWELING, CONSULTANT FOR SCIENTIFIC AND GOVERNMENTAL AFFAIRS

Senator COCHRAN. Our next witnesses are representing the National Pork Producers Council, Mr. Carson Rogers, executive committee member, and Mr. David Cummings, executive committee member.

We want to welcome you to the committee.

Mr. CUMMINGS. Thank you, Mr. Chairman. I have with me Dr. Don Van Houweling from our staff here in Washington.

We thank you for providing us with this opportunity to appear before your subcommittee. Representatives of the National Pork Producers Council have been accorded this opportunity for several years, and we do appreciate the opportunity.

The National Pork Producers Council represents 110,000 pork producers and their families. The council represents essentially all of the commercial swine production in the United States. There are 38 State pork producer asscciations affiliated with the National Pork Council. In early March, we held our 13th annual conference, the American Pork Congress, in St. Louis, Mo. Some 11,500 producers registered at this congress which is now the largest agricultural commodity conference in the world.

Pork producers are primarily concerned about the appropriations for three areas of the USDA's programs; namely, (1) research and extension, (2) animal disease control and prevention, and (3) the meat inspection program.

RESEARCH AND EXTENSION

I would like to discuss the research and extension programs first. Although we recognize the current problems with the huge projected Federal deficits, the record clearly demonstrates the importance of these programs in the past. We feel that it is imperative to maintain and even increase the funding level for these programs now and in the future.

The total budget for research—intramural and extramural—and the Federal Extension Service is a little over $1 billion. This is really an insignificant amount of the total Federal budget and a very low proportion of the research expenditures of the Federal Government. There was a time when the Federal agricultural research appropriation was a significant part of the total R&D expenditures. But as you know, Mr. Chairman, this is no longer true.

Therefore, we cannot concur with the proposed reductions of the budget that are before you. We believe that the U.S. Department of Agriculture, the State land-grant colleges and universities, and the State experiment stations have served agriculture and consumers well and returned much and have proven to be a great investment of public funds. We have considered carefully the recommendations of the National Association of State Universities and Land-Grant Colleges and feel they justify our support. We have in our written testimony these recommendations, and I will skip over those.

[The recommendations of NASULGC, excerpted from the statement, follow:]

One, a 7-percent increase in the base programs over fiscal year 1983.

Two, restoration of $5.8 million for animal health research with a $2.2 million increase in the section 1433 programs and $4 million for section 1434.

Three, restoration of $2 million for renewable resources extension with an addition of $3 million.

Four, restoration of all special grants and extension 3(d) items to the fiscal year 1983 level.

Five, initiation of three new extension programs which are integrated reproduction management, aquaculture, and provisions for new Federal initiatives totaling $8 million.

IRM

Mr. CUMMINGS. The National Pork Producers Council especially wants to highlight the need for funds from the Cooperative State Research Service and the Federal Extension Service for the integrated reproductive management program. Because of its cost effectiveness, this is an idea or concept whose time has come. The Forum for Animal Agriculture, the coalition of many of the animal agriculture commodity organizations in the country, has indicated full support of the IRM program. The industry sees the program as a unique, cooperative blend of the various Federal agencies, the State experiment stations, and industry in reproductive problem solving on the farm. The multidisciplinary cooperative approach which transcends agency lines is what livestock producers have been in need of for a long time.

The close tie-in with the Extension Service will assure the communication of the applicable results to where it can be used. Specifically, we urge that $1 million be appropriated or earmarked for IRM for each of these agencies to match the funds that are available from the Agricultural Research Service.

COMPETITIVE RESEARCH GRANTS

One other specific item in the research budget is very important to us. NPPC worked hard with the CSRS, its advisory committee on policy and the Department's officials to get an appropriation for competitive research grants for animal production. This committee is well aware of the failure to provide any funds for basic animal agriculture research under this program in previous years. Finally, we were able to get the administration to budget $4.5 million for this purpose. It is essential that this budget proposal be approved.

The foundation for the tremendous increases in productivity which animal agriculture has achieved was the basic research done years ago. We feel that pipeline is about empty and has to be refilled for us to continue to produce food so economically that our population can enjoy an abundant supply of the delicious, nutritious foods from animals and still spend less of their disposable income for food. Our people are the envy of the world, and to continue this in the future, the United States needs new basic information to make further increases in our efficiency.

At this time I would like Carson Rogers of Nebraska to talk about a special interest. If you have any questions on the specific issues, I would be glad to respond.

Mr. ROGERS. Thank you very much.

I am a pork producer from Nebraska.

APHIS/PSEUDORABIES

The National Pork Producers Council does have one very special request in the APHIS area, that is, $2.7 million for continuing the pseudorabies or PRV pilot projects which are being initiated this fiscal year. Last year, this committee agreed with the merit of these programs but did not provide funds. The House committee urged the Department and industry to initiate these projects, which has now been done. And I think this is the really important item. The National Pork Producers Council offered $100,000, and the Department has agreed to add $400,000 to the fund for these programs in two States. There are, however, three other States wishing to begin programs, and since the program is only going to be for a portion of a year in fiscal year 1983, the total funds needed for fiscal year 1984 has been estimated to be $2.66 million. The National Pork Producers Council will make as a part of the record, if we may, Mr. Chairman, the detailed projection of expenses in the five States wishing to carry out pilot projects in 1984. Also, we are submitting a more detailed explanation of the disease of pseudorabies, the need for the pilot projects, and other background information which was furnished to the Committee on Agriculture. As you know, the House Agriculture Committee unanimously recommended to the Budget Committee a $2.7 million budget level for this purpose.

The National Pork Producers Council would prefer the addition of a line item for this purpose. If the committee does not agree, we will appreciate the earmarking of funds for this purpose in your report. It is hard to overemphasize the importance pork producers attach to these programs. We sincerely urge your very careful consideration of this request.

Maybe a comment here that isn't in the report. We feel three, four, five States that are going to initiate the pilot projects are going to be sacrificing for the industry, for the rest of us. These are the States that agreed to start. There is some money coming from the other producers and from the Federal Government.

AQI AND ANIMAL IMPORT-EXPORT PROGRAMS

NPPC is not directly affected by the reductions proposed in this agency's programs. In fact, NPPC applauds the increases in the import-export protection provided by the agricultural quarantine inspection and animal import-export programs. We realize that much of this increase must be realized by user fees which we do not oppose.

BRUCELLOSIS

The reduction in the suggested appropriation for the brucellosis does not affect pork producers directly, but many of our producers also have cattle. NPPC questions whether reductions of the magnitude proposed can be replaced by industry contributions as rapidly as the budget would require. We would oppose the abandonment of the goal of eradication for either swine or bovine brucellosis.

FOOD SAFETY AND INSPECTION SERVICE

Mr. Chairman, the National Pork Producers Council finds the modest increase proposed for the Food Safety and Inspection Service one that we can support. The confidence our consumers have in their meat supply is something we value very highly. The record of this agency and this program merits the support they receive, and we urge your committee to appropriate the amount requested for this program.

Mr. Chairman, this concludes our recommendations. I thank you, and I will try to answer any questions you may have.

Senator COCHRAN. Thank you, Mr. Rogers.

PILOT PROJECTS

We had a witness the other day who testified before the committee from Marshall County, Iowa. I think one of the pilot projects is going to be located in Marshall County.

Mr. ROGERS. Yes.

Senator COCHRAN. Where are the other three projects going to be located?

Mr. ROGERS. In Illinois, it went to three different townships, and they received really positive reports from two of these townships. Pike County is one, and I don't know the name of the other county. But they have two counties. Whether they go to townships, they want to get

99 percent of the producers in the area to cooperate to make it successful. Pennsylvania and Wisconsin are the other States.

Senator COCHRAN. Well, we certainly hope we can continue to see this program supported. I know how important it is. In talking with David Cummings from time to time about his concerns for pork producers, I am well aware of the need to have an adequate level of funding so we can carry out an effective eradication program to protect the producers and the consumers ultimately. It is in the interest of everybody to see an effective program implemented.

RESEARCH

With regard to your testimony in connection with research funding, we have some important research going on in all of our State universities and land-grant colleges, and that is certainly an important aspect of the budget as far as I am concerned. We appreciate your spending some time talking about your interests in that. I think it is helpful to us to have a complete record on that subject.

I appreciate your being here, and thank you for contributing to our hearing.

Mr. ROGERS. This is not in the record, but to me this is really important, Mr. Chairman. We have come back time after time. I think this is the first time pork producers have ever come back asking for money.

Senator COCHRAN. We hear you.

[CLERK'S NOTE.—Subsequent to the hearing, the following material was provided by the National Pork Producers Council for the record:]

PSEUDORABIES PILOT PROJECT

Pseudorabies (PR) pilot project proposals have been submitted by Illinois, Iowa, North Carolina, Pennsylvania and Wisconsin. No project will be started unless and until funds are available and the project is supported by affected producers and related industry. All projects will be joint State/Federal cooperative endeavor administered under State authority. Projects will only be approved to the extent funds are available.

Illinois--In an endemic county, the skin test, with serologic verification, will be used to determine PR status in all swine herds. All infected herds will be quarantined. Herd cleanup plans will be instituted with infected breeding animals sent to slaughter. PR tests will be required for movement of breeding swine (serologic). A portion of feeder pigs in each movement will be tested.

Iowa--The PR status of each herd in the project area will be determined by on-farm, fee-basis testing. Herds free of PR may be maintained as qualified PR negative herds or PR controlled vaccinated herds. Owners of all other herds will be encouraged to allow all swine to be vaccinated or to implement an approved herd cleanup plan. Approximately 6 months after an outbreak in a herd, offspring will be left unvaccinated and isolated as a nucleus of a PR free herd.

North Carolina--In Green County, the status of all herds will be determined (6,000 breeding swine are now under quarantine). Infected herds will be quarantined. Owners will be encouraged to send infected breeding swine to slaughter. PR infected herds in other counties will be detected by testing sera collected at slaughter. Infected, adjacent, or epidemiologically related herds will be tested serologically. Premovement PR tests will be required for all breeding swine. Herd cleanup procedures will be depopulation, test and slaughter, and early weaning and segregation. PR vaccines may be used with prior approval. Feeder swine will be restricted to slaughter.

Pennsylvania--Known infected herds in the endemic area have been reduced from 70 to 10 (approximate). No new infected herds have been identified since October. Plans have been dropped to conduct on farm testing in the endemic area. Resources will be utilized statewide. Samples collected at slaughter as part of the swine brucellosis program will be tested for PR with traceback utilizing swine ID requirements recently instituted by the State. Infected herds will be quarantined until determined to be PR free or premises are voluntarily depopulated. Premovement test requirements for breeder swine became effected May 20. Epidemiologic investigation, with DNA fingerprinting, will be included.

Wisconsin--A statewide program will identify infected herds by serologic testing of slaughter swine, by tests required to comply with State regulations and epidemiologic traceouts. Infected herds will be quarantined until PR free or voluntarily depopulated. Technical advice and assistance will be available for cleanup of infected herds. Vaccine usage will be controlled. Animal identification will be emphasized.

Pseudorabies Pilot Projects

Estimated Costs

	State	Federal	Federal Indemnity	Total
Illinois	186,724	280,258	317,760	784,742
Iowa	120,000	278,980	---	398,980
North Carolina	225,221	347,864	120,000	693,085
Pennsylvania	120,000	178,000		298,000
Wisconsin	192,484	163,953	40,000	396,437
Total Local	884,429	1,249,055	477,760	2,571,244
VMO and Training		100,000		
DNA fingerprinting		27,200		
Travel		25,000		
NVSL		200,000		
Total		352,200		
Total Federal Program		1,601,255		
15 percent overhead		240,188	71,664	
Total	884,429	1,841,443	549,424	3,275,296

ILLINOIS 1984 PSEUDORABIES PROJECT

FEDERAL

Salary (5.38 man-years)		$195,973
Field	$157,340	
Regional	$ 25,000	
Clerical	$ 13,633	
All Other		84,285
Per Diem	$ 12,000	
Vehicle Operation	$ 10,000	
Supplies	$ 32,000	
Equipment	$ 285	
ELISA equipment	$ 30,000	
SUBTOTAL:		$280,258

INDEMNITY

20 purebred herds x 48 swine x 25.00	24,000
136 grade herds x 48 swine x 10.00	65,280
45,696 feeder pigs x 5.00	228,480
TOTAL INDEMNITY	$317,760
TOTAL FEDERAL	$598,018

STATE

Salary		
3 VMO	$ 92,184	
3 AHT	$ 55,540	
1 Clerk	$ 12,000	
Lab Personnel	$ 12,000	
STATE SALARIES		$171,724
Vehicle Operations		15,000
TOTAL STATE		$186,724
TOTAL PROJECT		$784,742

IOWA
PSEUDORABIES PILOT CONTROL PROJECT
County Wide Project

Crop and Livestock Reporting Service 1980-81:

12,500 - 13,500 sows on 120 farms
194,000 - pigs produced yearly
160,000 - pigs sold to market
34,000 - pigs sold as feeders

An average farm has +100 sows producing two litters per year with 8+ pig average, approximately 1,600 pig per year.

Of the 120 farms producing swine in 1981, the PRV status on approximately 1/3, 41 farms is already known, 22 are Qualified Free of Controlled Vaccinated, 19 are currently under quarantined.

Fee Schedule, Laboratory and Vaccine Allowance:

Herd stop	$ 15.00
First 10 animals bled	2.50
All over 10 animals	2.00
Laboratory fee	1.00
Vaccine allowance	1.25

FEDERAL PROJECT COST PER YEAR

Initial test on 120 herds	$ 26,400
Maintenance testing and cleanup to release quarantine	39,800
Laboratory fee allowance 41,000 per $1.00	41,000
Vaccine cost at 25 percent rate of infection 50,000 doses $1.25 per dose	62,500
Surveillance testing of feeder pigs into and out of area 10 percent of 30,000	15,000
Subtotal	$184,700
1 VMO - Project Director	$ 32,000
1 Clerk Typist 11	12,800
1 Lab Technican or Animal Health Technician	17,500
Total	$ 62,300
10 Percent Benefits	$ 6,230
Total	$ 68,530
Travel Allowance	$ 3,250
Vehicle Expense	2,400
Supplies, Tags, Etc.	1,600
	16,300
Total	$25,750
Federal Total	$278,980
State Cost	$120,000
Total:	$398,980

WISCONSIN PILOT PROGRAM (PSEUDORABIES)

Federal Portion:

VMO	.66 my	$26,046	
AHT	1.33 my	31,513	
Lab Tech	2.00 my	26,738	
Clerk	.50 my	6,511	90,808
Benefits @ 11%			9,989
Travel 10,000 miles @ $ .25			2,500
Administrative Support			13,656
Supplies			17,000
Capital Equipment (ELISA)			30,000
TOTAL PROGRAM:			163,953
Indemnity			40,000
			203,953

State Portion: Wisconsin

Field Vet.	.60 my	$16,026	
Epidemiologist	.50 my	15,000	
Animal Health Inspector		26,571	
Secretary	.50	7,283	64,880
Benefits @ 22%			14,274
Travel & Per Diem			11,330
Laboratory			
($1.50 per sample) 58,000 slaughter samples -			87,000
($1.50 per sample) 10,000 tracebacksamples -			15,000
TOTAL STATE PROGRAM:			192,484

NORTH CAROLINA

GREENE COUNTY CENSUS

296 farms with swine	127,500
140 farms with breeding swine	17,850
156 farms with other hogs & pigs	109,650

FEDERAL PORTION: 2/18/83

1 epidemiologist	50,256	
1 clerk	18,936	
2 lab. technicians	41,075	$104,267
Benefits at approx. 14%		14,597
Travel:		4,500
Possible Change of Duty Station Charge (@ 7,000 for 2)		14,000
Fee Basis for Testing:		
55,000 swine x $3.00 per head =		165,000
Laboratory Supplies:		
50,000 extra samples		10,500
ELISA equipment		30,000
Indirect Charges		5,000
TOTAL FEDERAL PROGRAM:		$347,864

STATE PROGRAM:

VMO 1.50 my & AHT 2.00 my	107,300
Travel Cost	25,221
Laboratory Support	68,000
Tags and Other Supplies	1,750
Administrative Costs	15,700
Other Clerical (University & County Extension)	7,250
TOTAL STATE PORTION:	$225,221

Indemnity	
16 herds containing 8,000 breeders x $15	$120,000

PENNSYLVANIA

REVISED PILOT PSEUDORABIES PROGRAM
(SURVEILLANCE TESTING OF ONLY MARKET BREEDING SWINE)

Cost of Pseudorabies Surveillance of Market Breeding Swine Estimate is based on:

1. Pseudorabies test is done on blood samples collected for the Brucellosis Market Swine Program.

2. 36,000 samples tested (24,000 samples are from Pennsyulvania swine; 12,000 samples are from out-of-state swine per year).

FEDERAL COSTS

1 Federal VMO	$30,000		
1 my AHT	50,000		
Travel	8,000		
	$88,000		
Laboratory Supplies		$ 36,000	
Laboratory Technician	16,000		
Administration Costs		8,000	
Elisa equipment		30,000	
		$90,000	
Total Federal			$178,000
State Costs			$120,000

BACKGROUND FOR PRV PILOT PROJECTS

Pseudorabies, which is also called PRV, is also known as mad itch in cattle and sheep, and can be an explosive disease in young swine. The most severe losses in swine usually occur at the time pigs are being born, and can cause heavy death losses of baby pigs. While the disease has been recognized for a hundred years or longer, it has become a major swine disease during the past 15-20 years. The seriousness of the disease may be related to the intensity of swine production, i.e. large numbers in certain areas and confinement rearing.

There is a reliable blood test for the disease. There are vaccines too, but the use of them confuses the blood testing in that the vaccine "reactors" can not be distinquished from those actually infected.

The USDA has had a regulation governing the interstate movement of swine for several years. Hog raisers who produce for slaughter are effected very little by these regulations. But producers of breeding animals are greatly restricted from selling animals if their herds become infected.

Because of this unequal effect of the only government program, the interstate regulation, PRV has become a controversial and emotional issue among swine producers. There are strong demands to eliminate the interstate regulations, and equally strong demands for the "free" areas to maintain their status. Unless there is real hope that the disease can be effectively controlled or even eradicated, it is difficult to defend retaining the regulations.

This accounts for the popularity of the so-called pilot projects. These projects will test various procedures such as vaccination, blood testing, skin testing, and "clean up" procedures. Based upon the results of these pilot projects, it is expected that procedures for the effective control and eventual eradication can be developed.

It has been estimated that PRV is costing swine producers $35 million a year. Any increased cost of production not only reduces the profitability of pork production, but, also raises the cost of food for consumers. If the disease goes unchecked, the losses will become much greater and could substantially effect the cost of pork to consumers.

This is why it is urgent to activate these pilot projects. Five states have volunteered them (Iowa, Illinois, North Carolina, Pennsylvania, Wisconsin). Plans for carrying them out have been developed, and with the assistance of federal funds, they can be implemented and tested.

The National Pork Producers Council has offered $100,000 and the USDA has diverted $400,000 for the pilot projects in Iowa and Illinois in fiscal year 1983. The USDA also has funds available to assist the other states during FY'83.

Unless money is made available to continue these projects in FY'84, the money and effort expended in FY'83 will be of little value. Therefore, it is urgent that Congress appropriate $2.66 million in FY'84 for the continuation of these projects (this includes the $276,000 in the budget for PRV).

The FY'83 Report of the House Appropriations Committee stated "The pilot projects seem to have merit, but since the Department did not request funds for them in the FY'83 budget, we did not provide funds for them." The Committee also urged the industry and the Department to fund these projects in FY'83. Now that this has been done, it is important that the Appropriations Committee provide funds to keep them going in FY'84.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

STATEMENT OF WILLIAM SAMUELS, CHIEF EXECUTIVE OFFICER, NATIONAL SOCIETY FOR MEDICAL RESEARCH

Senator ABDNOR [presiding]. Before I call the next witness, I want to point out that Chairman Cochran had to leave. Let's try to maintain the 10-minute limit. I have to leave for another meeting at 12:30 p.m., and I don't want to cut anyone off. Some of the witnesses have traveled a long distance to be here, so let's make certain everyone gets a chance to testify.

The next witness is Mr. William Samuels, Association of American Medical Colleges.

Mr. Samuels, we welcome you to the committee. I hope you don't think I am being rude in what I said. It is just that we get ourselves in a tight schedule.

Let me say this. Your entire statement will be made a part of the record. You can proceed in any matter you wish.

OPENING REMARKS

Mr. SAMUELS. Thank you.

Although I am speaking for the Association of American Medical Colleges, I am authorized to speak for eight associations which probably represent 80 to 90 percent of all scientists or researchers in biomedical research in the country. I currently serve as the chief executive officer of the National Society for Medical Research and as the governmental affairs consultant for the American Physiological Society. My remarks represent the views of the constituencies of both these organizations, as well as six other associations which, collectively, represent the Nation's biological and medical research interests.

ADEQUATE FUNDS FOR ANIMAL WELFARE

These organizations are deeply committed to the conduct of research under the optimum scientific and ethical standards and conditions. The attitude includes the humane and conservative use of animals as subjects of biomedical and behavioral research, a circumstance that is essential to the continuing improvements in the health and well-being of both humans and animals. Thus, we are strongly opposed to both the proposed reduction in the budget of the Animal and Plant Health Inspection Service for the inspection of research facilities and the proposed transfer of this activity to the States, industry, humane societies, and individuals. An identical proposal was advanced last year, and we were deeply gratified by the subcommittee's rejection of it at that time. Nothing has happened within this past year to change our opinion of the necessity of retaining the authority of APHIS in this area and providing that agency with adequate funds to carry out these important functions.

INSPECTION OF LABS

Since passage of the Animal Welfare Act of 1966 this regulatory program has been—and we firmly believe should continue to be—the responsibility of APHIS. This responsibility includes the inspection of research facilities to assure that the standards established by the Animal Welfare Act for the humane treatment of laboratory animals are met and are maintained. Standards for transportation, purchase, sale, handling, housing, feeding, watering, sanitation, ventilation, shelter from extreme weather and temperature, veterinary care, and the reporting of both pain and stress as well as their alleviation in research involving animals are encompassed by the act.

Continuation of this inspection function is of critical importance, especially if federally funded research is to continue to be carried out under standards prescribed by the Government. To transfer this legitimate Federal function to non-Federal organizations would most assuredly result in the adoption of a chaotic and inhomogenous body of rules, statutes, and regulations to govern federally funded research developed over an extremely uncertain timeframe. Moreover, there does not appear to be any evidence that any of the entities cited in the administration's proposal are either authorized or capable—both technically and philosophically—of assuming these important responsibilities. Given the current economic constraints, within which the States, and indeed most organizations must currently operate, it is dubious that the necessary funds would be available to non-Federal agencies to assure this obligation.

ANIMAL CRUELTY

Although laws to address animal cruelty have been enacted in all the States, none of these reflect the nature and intent of the Animal Welfare Act. Nine States do have laws that pertain to some parts of the act—usually in fringe areas and with only certain specified animals—but none are applicable to research institutions.

Should the responsibility for enforcement be transferred as proposed, a number of questions must be seriously considered:

First, how will violations be handled in the interim?

Second, how can institutions or organizations that operate in several States comply effectively with varied State laws and regulations regarding the care and treatment of laboratory animals?

Third, how would interstate carriers of animals, which APHIS cites as a major source for violations, be monitored?

These are questions of vital concern to every research facility. Because of the absence of satisfactory answers and the lack of authorization and adequate credentials for volunteer organizations or individuals to conduct inspections, it is most improbable that any scientist would open his laboratory door to unqualified and inexperienced groups or individuals for the purpose of making subjective judgments about the care and treatment of research animals.

The mandate of the Animal Welfare Act to APHIS for the inspection of research facilities is currently being implemented by a cadre of qualified and experienced veterinarians and animal health technicians.

To terminate their function would lead to the dismantling of an already established system that would take many years to recreate in each of the 50 States and within their local jurisdictions. Also lost would be a system for detecting animal abuse.

This is not to suggest that improvements in the current system are not needed; this need largely relates to the inadequate funding for the agency to carry out its functions. I would like to point out that appropriated funding of $1.9 million for this activity in 1983 was lost due to a USDA reprograming of these funds.

REJECTION OF FISCAL YEAR 1984 BUDGET REQUEST

As you are well aware, questions concerning the use, care, and treatment of laboratory animals are currently under intense examination by the Congress due to strongly voiced public concerns. The scientific community is deeply concerned that the safeguards built into the current system—the regulatory inspection program administered by APHIS—work as effectively as possible in order to maintain the public confidence necessary for scientific research to continue to advance. Thus, it is the united plea of the biomedical research community that this responsibility be continued by the Federal Government. This responsibility can be maintained by rejecting the administration's fiscal 1984 proposal to eliminate $3.4 million of the cost by transferring the primary enforcement responsibilities from APHIS to States, industry groups, humane societies, and individuals.

The enforcement of the Animal Welfare Act not only is a legitimate function of the Federal Government, it is one that is best served by the Federal Government. Any abdication of this responsibility would be opposed by the scientific community, as well as by those who hold a serious regard for the welfare of all animals.

We appreciate this opportunity to present this brief appeal, and I would be happy to respond to any questions you may have.

Senator ABDNOR. Mr. Samuels, what the administration is proposing would maintain the operation. We appropriated $4.8 million last year, and $1.9 million you said was lost due to a reprograming in the funds. This year they are going to eliminate $3.4 million.

Mr. SAMUELS. The proposal this year by the administration is identical to last year's proposal, to reduce it by $3.4 million. The committee restored it to the current level, and the Department of Agriculture took $1.9 million of that and programed it to import-export programs.

Senator ABDNOR. We should either maintain a strong program or do away with it. I am not advocating doing away with it, but we are either going to have it or we are not.

Mr. SAMUELS. We would hope you would have the program.

Senator ABDNOR. The committee agreed with you last year. I think any of us in agriculture know the importance of the program. We are operating under strict budget restraints again this year, and we will have to use our best judgment in setting funding priorities. We certainly appreciate your testimony and, particularly, who you speak for—a sizable group of people. We thank you very much.

Mr. SAMUELS. Thank you, Mr. Chairman.

SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION

STATEMENT OF JOHN GLEIBER, EXECUTIVE SECRETARY

Senator ABDNOR. The next witness is John Gleiber of the Society for Animal Protective Legislation.

Welcome to the committee. I guess you heard me go on a few minutes ago. Mr. Gleiber, again, I will tell you that we will place your entire statement in the record. So if you care to summarize, proceed anyway you want to.

Mr. GLEIBER. Thank you very much, Mr. Chairman. I am very glad to be here. I am substituting for Christine Stevens, the secretary of the Society for Animal Protective Legislation, who is very sorry she could not be here to continue her annual plea for more funds. She is not feeling well, and she is trying to husband her strength, because tomorrow night there will be a dedication in North Carolina named in honor of her husband.

I am John Gleiber, and I am executive secretary of the Society. I am submitting my very short statement for the record.

[The statement follows:]

STATEMENT OF JOHN GLEIBER

On behalf of the Society for Animal Protective Legislation, I wish to request appropriation of $7.5 million for fiscal year 1984 for enforcement of the Animal Welfare Act by the Animal and Plant Health Inspection Service. We appreciate the action of this distinguished subcommittee in restoring to the 1982 level of the 1983 appropriation which had been cut by the Office of Management and Budget to a mere $1.5 million. Regrettably, a similar reduction has been proposed by OMB for the fiscal year 1984 appropriation. No recognition seems to have been given to the good work of veterinary services, the streamlining of authority under the recent reorganization, and the basic need to make thorough inspections of premises licensed or registered under the provisions of the Animal Welfare Act.

Thus, we must again appeal to the understanding of this subcommittee to make possible what Congress intended when it passed the act in 1966 and amended it in 1970 and 1976—namely, enforcement of the requirement for minimum standards in the care and treatment of animals in laboratories, dealers' premises, zoos, circuses, the wholesale pet trade, in transportation, and at airports throughout the entire United States—a tremendous task.

It has been suggested by OMB that the whole program could be run by merely responding to complaints. Such complaints are, of course, regularly answered, but it is the realization that an unannounced inspection may be made at any time which provides the incentive to all licensees and registrants to maintain decent standards. Without such routine inspections, the genuine progress that has been made would rapidly fade away. There is no other means of providing surveillance in places where the chief potential complainants and witnesses have no voice—they are animals. Most of the humans who witness violations fear to come forward because it could cost them their jobs. USDA inspectors are the authoritative third parties without whom unrelieved cruelty and neglect would flourish as it did prior to 1966.

The idea that the States, humane societies, industry groups, and individuals could fulfill the role of the U.S. Department of Agriculture is unfounded. It was because of the terrible abuses which these groups were incapable of controlling that the Animal Welfare Act and its subsequent broadening and strengthening amendments were enacted by the Congress by overwhelming majorities or unanimous consent. The abuses have been curbed in many instances, and the Department's record is steadily improving in bringing violators to justice, thus helping to deter future violations.

In order to make a single inspection of every research facility, dealer, wholesale pet trader, puppy mill, zoo, circus, airport and make second and third inspections where conditions require followup, an appropriation of $7.5 million is necessary. Veterinary Services has been criticized for failure to act effectively from time to time. To insure that all inspectors are properly motivated and trained and that they can cover their very extensive assignments requires funds. It also requires leadership and direction both within the agency and by Congress. By a reasonable increase from $4.8 million in fiscal year 1983 to $7.5 million in fiscal year 1984, the Congress will go a long way toward achieving this goal.

Effective enforcement of the Federal Animal Welfare Act is a goal strongly supported by the American public, as was demonstrated when a documentary report of animal theft and abuse was published in Life magazine, February 1965. The article played a leading role in passage of the bill, and no other article ever published in Life's entire history received so many letters from readers. The publishers themselves were astonished. The fact is that the large majority of Americans want effective assurance that the dogs, cats, rabbits, hamsters, guinea pigs, primates, and marine mammals covered by the act are decently treated and that dog and cat thieves are pursued, penalized and effectively prevented from continuing their illegal activity.

Without sufficient funds to follow up leads on dealers obtaining animals from dubious sources and keeping inadequate records, theft of dogs and cats will continue. Several recent useful actions have been taken in this area by the Animal and Plant Health Inspection Service. They could not have been conducted had funds been cut back as recommended by OMB nor can they be thoroughly pursued if funds are not raised for fiscal year 1984 to the $7.5 million level. The public wants the protection that APHIS can give. APHIS is ready and willing to do the work. On behalf of millions of owners of pets and of valuable hunting dogs, on behalf of humanitarians generally, we urge appropriation of sufficient funds to do the job that Congress has mandated.

ANIMAL WELFARE

Mr. GLEIBER. I just want to say that we are always grateful to appear before this committee, because we have always found it to be very, very sensitive to the needs of animals. The animals have several constituents. They have organizations like mine and other organizations you have heard earlier. Obviously, they have the will of this subcommittee and the Congress, and they certainly have the best wishes of the American people. There is a tremendous constituency out there of people who are very, very interested in the welfare of animals, and they do not want to see this very, very modest program cut back.

It is a modest program, but it is a very, very far-reaching program. When APHIS operates, they enforce requirements for minimum standards in the care and treatment of animals in laboratories, dealers' premises, zoos, circuses, the wholesale pet trade, transportation, and they monitor the treatment of animals being shipped to places over the country.

One thing that I think is very important is that OMB has suggested the whole program could be run by merely responding to complaints. One of the most grave problems with that approach and that attitude would be that the people most likely to be in a position to complain, to be aware of complaints and be aware of the fact they can complain, would be people whose jobs might be jeopardized if they did complain. I think that would be a very, very weak breed to be able to lean on in cases like this.

The other important point which I would like to emphasize today is I have been involved in several meetings with people representing APHIS and people representing the U.S. Department of Agriculture, and I feel there is a very, very strong need and interest at USDA in this program. I think it would be tragic if the program were cut back. I think it would be even more tragic if the program were cut back with this strong feeling at the Department itself.

We at the Society would ask that the subcommittee consider funding the program at a level of $7.5 million. This would be a reasonable figure for a very, very important program.

Thank you very much.

Senator ABDNOR. What was the figure last year?

Mr. GLEIBER. $4.8 million.

Senator ABDNOR. And you are asking for almost a $3 million increase?

Mr. GLEIBER. Yes.

Senator ABDNOR. To be honest with you, it will be extremely difficult to find the funds to increase this budget by $3 million. Isn't $4.8 million enough?

Mr. GLEIBER. I do think they have been doing the job.

Senator ABDNOR. Why do we have to double the budget?

Mr. GLEIBER. I think they have done a lot.

Senator ABDNOR. I, too, like APHIS. But you are saying that we ought to almost double the budget for animal welfare. How do I explain that to other agencies?

Mr. GLEIBER. I think the point is they have done an absolutely remarkable job on a stringent budget. I think if we do fund them adequately, their work can be better than it has been.

Senator ABDNOR. I guess it is true.

Mr. GLEIBER. I hope it is true.

Senator ABDNOR. We appreciate it, and we know you certainly speak with authority on the subject. We are grateful for it. We will keep your views in mind. I guess I am a blunt person sometimes, but we are dealing with scarce dollars here. We appreciate your testimony. This is the only way we can make judgments—hearing from people who are authorities, like yourself. We thank you for your appearance today.

Mr. GLEIBER. Thank you very much.

NATIONAL ORGANIZATION FOR RARE DISORDERS

STATEMENT OF RICHARD E. VODRA, ASSOCIATE NATIONAL DIRECTOR

Senator ABDNOR. The next witness is the National Organization for Rare Disorders, represented by Richard E. Vodra, associate national director for public policy and development.

Mr. Vodra, welcome to the committee.

Mr. VODRA. Mr. Chairman, my name is Richard Vodra, of the Cystic Fibrosis Foundation, and I am pleased to be here on behalf of the National Organization for Rare Disorders. The full membership of the National Organization for Rare Disorders is attached to my complete statement.

ORPHAN DISEASES

The National Organization for Rare Disorders is a newly formed, nonprofit agency representing the interests of millions of Americans with orphan diseases. It was created by a group of voluntary agencies, scientific researchers, consumers, and individuals who worked for many years on the orphan drug issue. We believe there is a need for a permanent organization to call attention to the special concerns shared by people with uncommon health problems.

What I would like to do is explain a little bit about where we are, give you an outstanding success story, and then talk about our recommendations for 1984.

During recent years, this subcommittee has been an important advocate for people with orphan diseases. The Appropriations Committees of the Congress during the last 2 years directed the Food and Drug Administration to create and support a program which would facilitate the development of new drugs for rare disorders, otherwise known as orphan drugs. Commissioner Hayes created the Office of Orphan Product Development at the FDA during 1982, and Dr. Marion Finkel is Director of that office.

ORPHAN DRUG ACT

As you know, the Orphan Drug Act was signed into law by President Reagan on January 4, 1983. This was an exciting victory for us, but it represents only one step in assuring that the whole process works—from research to better treatment to assuring that care is available and affordable.

To date, the FDA's Office for Orphan Product Development can be credited with direct responsibility for the adoption of 18 orphan drugs, and the office is seeking sponsors for three more. The absence of a broad demand for these drugs had prevented drug companies from marketing them. For example, although cystic fibrosis is the most common fatal genetic disease in the United States, our patient population of 30,000 is still too small to attract drug development on our own. The new FDA office and new law have changed this situation, and we owe this subcommittee tremendous thanks for getting that ball rolling.

AIDS

We would like to illustrate just how important FDA's Orphan Drug Office has been during the past year by describing that office's role in what has become a major health concern. Acquired immunodeficiency syndrome, better known to the public as AIDS, is a new disease which shuts down the body's immune system, leaving patients open to deadly infections. One of the common complications of AIDS is pneumocystis carinii pneumonia, a rare but often fatal type of pneumonia. AIDS has been seen most often in specific populations of people, but those who become afflicted with this type of pneumonia, as a result of AIDS, often die of the infection.

A few years ago it was discovered that a drug used for treatment of an African strain of sleeping sickness was an effective therapy for the deadly type of pneumonia. This drug, pentamidine, had been produced in England, but it was no longer being manufactured.

The Centers for Disease Control saw the spreading of AIDS in the United States, although the ultimate extent of the problem could not be predicated. Thus, they decided to purchase the world's remaining stock of pentamidine, a small supply being stored in England. At the time this decision was made, CDC estimated that the purchased stock of pentamidine would be sufficient to last 5 years, and, therefore, it did not seek to have any American company make the drug under FDA's orphan drug program.

However, as we all know, this epidemic has spread to unanticipated proportions, and CDC realized that its stock of pentamidine was dangerously low. Since the drug was no longer being manufactured, new stocks could not be purchased. CDC contacted the FDA for help, and Dr. Marion Finkel, in turn, contacted the Generic Pharmaceutical Industry Association, which volunteered to assure a continuing supply of pentamidine to the American public.

The FDA played a crucial role in this crisis situation. If FDA had been unable to act promptly and decisively, several hundred people with AIDS might have died needlessly. We must reiterate that while this situation occurred before the Orphan Drug Act was signed into law, the mechanism for response existed. The Office for Orphan Drug Development had been created by a mandate of this subcommittee; without the appropriations you designated for fiscal year 1983, there would have been no Office for Orphan Drug Development at FDA, then or now.

We are pleased with this record of success, but we think it is prudent to ask this committee to continue to give special attention to the problems of orphan drugs when you consider the 1984 appropriations for FDA. The administration should clearly understand that congressional interest in this issue did not end when President Reagan signed the Orphan Drug Act, and that Congress wants to see continued action in the years to come.

FISCAL YEAR 1984 RECOMMENDATIONS

Our first recommendation for next fiscal year is to provide the Office of Orphan Product Development $1.5 million to support operating costs, special projects, and other activities. The FDA has a strong scientific staff, but because of the orphan nature of the diseases and drugs being dealt with, extra investments may sometimes be required in this area.

A second request is that the budget of the National Center for Toxicology Research, a part of FDA, be increased by $500,000 to support work in the orphan drug area. Clinical investigators have repeatedly pointed out that toxicology studies on orphan drugs remain a major problem in the development of those products. This phase of drug development involves animal studies to determine the safety of drugs. It would be extremely dangerous to give a drug which had not been studied for its toxicological effects on animals to a human being. These animal studies are enormously expensive and time consuming. We anticipate an increased demand for help in the future, and we are, therefore, asking for additional funds for the Center.

Finally, we would like to request that the $4 million grant authority in the Orphan Drug Act be funded in fiscal 1984. The act gives authority to the Secretary of HHS to make grants, and, to my knowledge, there are no regulations yet stating whether this authority is delegated to NIH or the FDA. Because different appropriations subcommittees have jurisdiction over these two agencies, this funding could conceivably fall into the crack and be overlooked. We believe that would be a mistake.

Grant authority is needed because, once basic research on a promising product has been done, there is still a need for clinical testing in humans before its true efficacy can be determined. Direct funding may also be necessary so that qualified products can be tested even if no commercial sponsor can immediately be identified.

Again, we thank this subcommittee for its interest in the orphan drug dilemma. Since the passage of the Orphan Drug Act, we can finally see the light at the end of the long, dark tunnel. However, the appropriations process continues to be the most important element of success in this Nation's orphan drug program. Without a sufficient amount of research on important new therapies, orphan drugs will never reach the desperate Americans who need them.

Thank you.

Senator ABDNOR. Mr. Vodra, thank you for your excellent testimony. We know the important work you people are doing in the National Organization for Rare Disorders. I know it is sometimes hard to make yourself heard. That is why it is good that you come before our committee. I can't give you any assurance at this time how we will come out when the whole committee sits down, because the dollars are tight. We certainly know your cause, and what you speak of certainly has a real need and real purpose. All I can assure you of is our very careful consideration.

Mr. VODRA. We appreciate your support, Senator. Thank you very much.

[The statement follows:]

STATEMENT OF RICHARD E. VODRA

My name is Richard Vodra, of the Cystic Fibrosis Foundation, and I am pleased to be here on behalf of the National Organization for Rare Disorders. The full membership of the National Organization for Rare Disorders is attached to my complete statement, which I hope will be included in the record.

I'd like to invite you to turn your attention to an important part of your Subcommittee's jurisdiction, the Food and Drug Administration. A successful FDA is essential to our nation's health, allowing the public to rely on the safety of the food and medicines they consume. With adequate funding, FDA can provide prompt and effective action for the development and introduction of new drugs and medical devices. Today I'd like to focus specifically on one part of the FDA's activity--that directed at orphan drugs.

The National Organization for Rare Disorders is a newly-formed, non-profit agency representing the interests of millions of Americans with "orphan diseases." It was created by a group of voluntary agencies, scientific researchers, consumers and individuals who worked for many years on the orphan drug issue. We believe there is a need for a permanent organization to call attention to the special concerns shared by people with uncommon health problems.

During recent years, this Subcommittee has been an important advocate for people with orphan diseases. The Appropriations Committees of the Congress during the last two years directed the Food and Drug Administration (FDA) to create and support a program which would facilitate the development of new drugs for rare disorders, otherwise known as "orphan drugs." Commissioner Hayes did create the Office of Orphan Product Development at the FDA during 1982, and Dr. Marion Finkel is Director of that office.

As you know, the Orphan Drug Act was signed into law on January 4, 1983. This was an exciting victory for us, but represents only one step--a big one to be sure--in assuring that the whole process works, from research to better treatment to assuring that care is available and affordable. We plan to stay around as long as we're needed.

To date, the FDA's Office for Orphan Product Development can be credited with direct responsibility for the adoption of 18 orphan drugs, and the office is seeking sponsors for three more. The absence of a broad demand for these drugs had prevented drug companies from marketing them. For example, although cystic fibrosis is the most common fatal genetic disease in the U.S., our patient population of 30,000 is still too small to attract drug development on our own. The new office and new law have changed this situation and we owe this Subcommittee tremendous thanks for getting the ball rolling.

Although the number of new drugs may seem small, they have meant life or death to thousands of Americans with rare disorders, and we know that those 18 drugs are simply the tip of the iceberg. In future years FDA will be responsible for saving millions of Americans with rare disorders from total disability and death.

We would like to illustrate just how important FDA's Orphan Drug Office has been during the past year by describing that office's role in what has become a major health concern. Acquired Immunodeficiency Syndrome, better known to the public as AIDS, is a disease which shuts down the body's immune system, leaving patients open to deadly infections. One of the common complications of AIDS is Pneumocystis carinii pneumonia, a rare but often fatal form of pneumonia. AIDS has been seen most often in specific populations of people including homosexuals, people with hemophilia, and some people of Carribean heritage. Those who become afflicted with this rare type of pneumonia, as a result of AIDS, often die of the infection.

A few years ago it was discovered that a drug used for treatment of an African strain of sleeping sickness, was an effective therapy for the deadly Pneumocystis carinii pneumonia. This drug, "pentamidine," had been produced in England, but was no longer being manufactured.

The Centers for Disease Control realized that AIDS seemed to be spreading in the United States, although the ultimate extent of the problem could not be predicted. Thus they decided to purchase the world's remaining stock of pentamidine, a small supply being stored in England. At the time this decision was made, CDC estimated that the purchased stock of pentamidine would be sufficient to last five years. Consequently, CDC did not seek to have an American company make the drug under FDA's Orphan Drug Program.

Within one year, the epidemic of AIDS had spread to unanticipated proportions and CDC realized that their stock of pentamidine was dangerously low. Since the drug was no longer being manufactured, new stocks could not be purchased. CDC contacted the FDA for help, and Dr. Marion Finkel in turn contacted the Generic Pharmaceutical Industry Association, which volunteered to assure a continuing supply of pentamidine to the American public.

The FDA played a crucial role in this crisis situation. If FDA had been unable to act promptly and decisively, several hundred people with AIDS might have died needlessly. We must reiterate that while this situation occured before the Orphan Drug Act was signed into law, the mechanism for response existed. The Office for Orphan Drug Development had been created by the mandate of this Subcommittee; without the appropriations you designated for FY 1983 there would have been no Office for Orphan Drug Development at FDA then or now.

At a February 17, 1983 meeting of the PMA Commission on Drugs for Rare Disorders, preliminary proposals for five new orphan drugs were considered. Information about three drugs was submitted by individual investigators and information on two of the drugs was submitted by the FDA. We know of 26 orphan drugs on which FDA has done some preliminary work, and we estimate that probably several dozen orphan drugs will be handled by the Office for Orphan Product Development this year.

We are pleased with this record of success, but we think it is prudent to ask this Committee to continue to give special attention to the problems of orphan drugs when you consider the FY84 appropriations for FDA. The Administration should clearly understand that Congressional interest in this issue did not end when President Reagan signed the Orphan Drug Act, and that Congress wants to see continued action in the years to come.

In Fiscal Year 1984 , we believe that the Office of Orphan Product Development needs $1.5 million to support operating costs, special projects, and other activities. The FDA has a strong scientific staff, but because of the orphan nature of the diseases and drugs being dealt with, extra investment may sometimes be required in this area more than in others. This money will be used, in part, to assure that this investment can be made.

A second request is that the budget of the National Center for Toxicology Research, a part of the FDA, be increased by $500,000 to support work in the orphan drug area. Clinical investigators have repeatedly pointed out that toxicology studies on orphan drugs remain a major problem in the development of orphan drugs. This phase of drug development involves animal studies to determine the safety of drugs. It would be extremely dangerous to give a drug which had not been studied for its toxicological effects to a human being.

These animal studies are enormously expensive and time consuming. Some drugs must be tested for six months to two years on specific groups of animals. At times, the absence of toxicological studies are the only element preventing a therapeutic drug from reaching its intended population. Since research grants do not include the costs of toxicological studies, the National Center for Toxicological Research (NCTR) in Arkansas has done a small amount of work in this area at FDA's request. We anticipate an increased demand for help in the future, and are therefore asking for additional funds for the Center.

Finally, we would like to request that the $4 million grant authority in the Orphan Drug Act be funded in FY84. The Act gives authority to the Secretary of HHS to make grants, and to my knowledge there are no regulations stating whether this authority is delegated to NIH or the FDA. Because different appropriations subcommittees have jurisdiction over these two agencies, this funding could fall into the crack and be overlooked. We believe that would be a mistake.

Grant authority is needed because, once basic research on a promising product has been done, there is still a need for clinical testing in humans before its true efficacy can be determined. Congress recognized in passing the Orphan Drug Act that financial incentives were needed to assure proper testing of an orphan drug. In most cases, we expect drug companies to follow through because of the tax credit provision, but direct funding may also be necessary so that qualified products can be tested even if no commercial sponsor can immediately be identified.

Again, we thank this Subcommittee for its interest in the orphan drug dilemma. Since the passage of the Orphan Drug Act, we can finally see the light at the end of the long, dark tunnel. However, the appropriations process continues to be the most important element of success in this nation's Orphan Drug Program. Without a sufficient amount of research on important new therapies, orphan drugs will never reach the desperate Americans who need them.

Thank you.

National Organization for Rare Disorders

Honorary National Chairman	Jack Klugman
Medical Advisors	Melvin H. Van Woert, M.D. Richard L. Masland, M.D. Edward J. Gralla, D.V.M. George J. Brewer, M.D. Jess G. Thoene, M.D.
Agencies	American Narcolepsy Association Amoytrophic Lateral Sclerosis Society of America Center for Neurologic Study Committee to Combat Huntington's Disease Cystic Fibrosis Foundation Dysautonomia Foundation, Inc. Dystrophic Epidermolysis Bullosa Research Association Epilepsy Foundation of America Friedreich's Ataxia Group, Inc. Gaucher's Disease Registry Guillain-Barre Syndrome Support Group International Joseph Diseases Foundation Myoclonus Families United National Association for Sickle Cell Disease, Inc. National Ataxia Foundation National Huntington's Disease Association National Multiple Sclerosis Society National Neurofibromatosis Foundation National Tuberous Sclerosis Association Paget's Disease Foundation Parkinson's Educational Program The Alexander Medical Foundation Tourette Syndrome Association United Parkinson Foundation Wilson's Disease Association

National Cotton Council of America

STATEMENT OF JOHN S. BARR III, CHAIRMAN, PRODUCER STEERING COMMITTEE

ACCOMPANIED BY J. RITCHIE SMITH, DIRECTOR, TECHNICAL RESEARCH SERVICE

Senator Abdnor. We will go back to the National Cotton Council of America. I understand they have come in.

If you gentlemen would care to come forward, we are still on a very tight schedule. I am filling in for Chairman Cochran.

Mr. Barr, let me first say that your entire statement will be made a part of the record. You may proceed.

[The statement follows:]

STATEMENT OF JOHN S. BARR, III

I am John S. Barr, III, cotton farmer from Oak Ridge, Louisiana, and chairman of the Producer Steering Committee of the National Cotton Council, in whose behalf I appear today. The Council is the central organization of the U. S. cotton industry, representing growers, ginners, warehousemen, cottonseed crushers, merchants, cooperatives, and manufacturers from California to the Carolinas.

SUMMARY: The continued erosion of federal funding for agricultural research is a matter of grave concern, threatening our nation's well-being. In recent years, we have gone along with a "no-growth" budget for ag research and a continued decline in cotton's share because of the need to reduce inflation and government spending. A decade of decline in cotton research, however, has already gone too far and there is no change in the proposed budget for fiscal 1984. During this decline the number of scientist years on cotton research has dropped over 25 percent, support personnel and operating funds have been cut back, research equipment and facilities have been downgraded, and several cotton research programs have been seriously damaged. Adding to our concern is the recently released ARS 6-year plan which indicates further sharp reductions in several important areas of cotton and agricultural research. We support the actions by Congress to turn this situation around — by adopting Title 14 of the Agricultural Acts of 1977 and 1981, and we urge moving toward the program and funding levels indicated in that title.

The proposed budget would eliminate the $7.5 million in State Extension Service earmarked funding for pest management programs, including $1.55 million allocated for boll weevil management in 11 states. Since the boll weevil and pink bollworm are now serious problems in the western states, we recommend $7.65 million for pest management which would provide $1.7 million for weevil control activities Beltwide. Also, we recommend restoration of $1.7 million in the Extension Service budget for the highly important pesticide impact assessment program.

We urge restoration of the proposed $893,000 cut in APHIS funds for the pink bollworm control program to prevent elimination of all federal quarantine work and the weakening of APHIS' essential role in the program.

The 1984 APHIS budget contains no funds for the Carolina boll weevil eradication program, nor has the supplemental funding called for in the conference report on the 1983 Appropriations Act yet been provided. Since the program is to start July 1 and producers have voted to pay 70 percent of the cost as stipulated in the conference report, we strongly urge early approval of a $2.5 million 1983 supplemental for the federal cost share. APHIS will also need $1 million added to its 1984 budget request to fund USDA's cost share for the program's second year.

Finally, we urge appropriations for the export credit revolving fund authorized by Congress in the 1981 farm law to expand overseas markets, improve our nation's trade balance, and further reduce inflation.

At the Council's annual meeting in February, the 290 delegates selected by 86 separate state, regional, or national organizations strongly endorsed expanded agricultural research programs. In a unanimous resolution, they expressed continuing support for "...appropriations for cotton research and extension programs conducted by USDA and Cotton Belt states, including federal funds for cotton and cottonseed research that provide for efficient program growth to adequate levels, recognizing that such action is not inflationary and will produce public benefits far in excess of its costs."

The resolution was prompted by several basic premises:

1. Agricultural research, both basic and applied, is essential to our nation's well-being and to its future. Without it, agriculture will not continue to be this country's largest and most productive business.

2. Even though agricultural research is expensive and requires sufficient time to be accomplished, its benefits far exceed its costs. Like research in other areas, it requires trained scientists, proper facilities, and scientific equipment that is costly but imperative. Because it involves biological systems and organisms, ag research must be established through long-range commitments of resources if it is to provide maximum future benefits.

Several studies document the high returns to society from the public investment in ag research. Dr. B. R. Eddleman of Mississippi State University and co-authors from three other universities reported that the expected annual rate of return on crop and livestock research investments ranges from 17% to 110%, and the annual return on cotton 35%. The study also showed that a family contributing $6 annually to ag research through federal and state taxes receives $20 in benefits in terms of reduced cost and improved quality.

Dr. H. E. White and associates at Virginia Polytechnic Institute calculated that one year's cut of $100 million in the ag research budget would be expected to cost consumers over 100 times that much in 20 years.

Professor Robert E. Evenson of Yale, in a study published in Science magazine in September, 1979, concluded that the annual rate of return on ag research expenditures is on the order of 50%. He emphasized that public funds invested in ag research are much too low.

3. The nation's agricultural problems and opportunities are not only diverse but widely separated geographically, requiring multi-location efforts to attack or study. Examples include the boll weevil eradication effort in the Carolinas, the integrated pest management system in Mississippi, and the pink bollworm and aflatoxin control efforts in California and Arizona. Some problems like air and water pollution are national in scope and can only be cured by research.

4. Production research, as the name implies, lowers the cost of production and increases productivity of limited resources — a powerful anti-inflationary force. Lower cost allows U. S. growers to be more competitive in world markets. In 1981-82, raw cotton exports alone were valued at about $2 billion and significantly helped reduce the trade deficit.

5. Of special significance is the continued erosion of federal funding for ag research in general and cotton research in particular. This is a matter of grave concern for our industry.

All segments of our industry recognize and support the need to reduce government inflation and spending. For that reason, we reluctantly accepted a "no-growth" agricultural research budget and a continued decline in cotton's share of research funding in recent years, with the expectation that funding for essential projects would be provided in the future.

During the period that cotton's share of the Agricultural Research Service budget went from $28.4 million in fiscal 1981 to only $29.6 million in fiscal 1983, the buying power of the dollar declined 13.5%. Thus, during this two year period the apparent 4% increase in funding actually resulted in a decline of 8.5% in real buying power.

We understand that no increase is proposed for fiscal 1984. And yet inflation and other added costs are again sharply reducing program efforts. In the past decade, the number of scientist years on cotton research provided by federal funds has dropped over 25 percent. In addition, the almost static budget has resulted in cutbacks in support personnel and operating funds, and downgraded research equipment and facilities. As a consequence, we are seeing damaging reductions in several cotton research programs, and the ARS 6-year plan just revealed indicates further sharp reductions in several important areas of cotton and agricultural research.

On two occasions now, Congress has moved to turn this situation around -- adopting Title 14 in the agricultural acts of both 1977 and 1981. We should move toward the programs and funding levels indicated in that Title just as soon as possible. At stake is the U. S. position as the world's most efficient producer of agricultural commodities. The proposed budget falls far short of implementing Title 14.

It is our understanding that formula funds for the State Experiment Stations and Extension Services would be unchanged, which means less program due to inflation. We had hoped some increase could have been given. But earmarked funding for Extension would be reduced $41.6 million. This would result in total elimination of federal funding for its pest management programs. Included in the proposed $7.5 million cut in pest management is a $1.55 million allocation for boll weevil management in 11 states. Since the boll weevil and pink bollworm are now serious problems in the western states, we recommend that the Committee restore this vital program and increase the level for weevil management to $1.7 million to provide control activities Beltwide. Extension pest management programs have been a major vehicle for carrying the latest technology to farmers for many years, and their sharp cutback would have a devastating effect on the agricultural sector. Federal appropriations for pest management are used by the states only for professional staff to plan and supervise the programs. Farmers themselves pay nearly all other costs.

Also eliminated from the Extension budget is the highly important pesticide impact assessment program which gives us the ability to determine whether a proposed pesticide regulatory action is economically and technically feasible. We recommend that this $1.7 million program be restored also.

The proposed budget would cut APHIS funds for the pink bollworm control program by $893,000. This would eliminate all federal quarantine work and weaken APHIS' essential role in the program. Without controls to keep this highly damaging insect from spreading to non-infested cotton growing areas, the program would be seriously damaged. We strongly urge the Committee to restore the cuts.

The 1984 APHIS budget contains no funds for the Carolina boll weevil eradication program, nor has the supplemental funding called for in the conference report on the 1983 Appropriations Act yet been provided. This report expressed Congress' understanding that USDA was expected to submit a supplemental budget request to fund its 30% share if producers approved the program. They did so in January, voting to assess themselves over three years an estimated $75 per acre, or 70% of the total cost.

We strongly urge this Committee to approve a $2.5 million 1983 supplemental for the federal cost share as quickly as possible. The program is to start July 1st, and several months' lead time is necessary for planning and logistics work.

With approval of the 1983 special supplement of $2.5 million, APHIS will need $1 million added to its FY 1984 request to fund USDA's cost share for the program's second year. Mr. Chairman, we appreciate your leadership in behalf of this highly important program.

Finally, Mr. Chairman, let me point out that Congress in the 1981 Farm Act recognized the importance of credit to our foreign customers when it authorized the export credit revolving fund. So far, this action has been an empty gesture -- no funds have been appropriated. We urge you to make the needed money available in the 1984 budget. Adding the revolving fund to the private and blended credit guarantees already in use will help U. S. agriculture expand overseas markets, improve our nation's trade balance, and further reduce inflation.

Thank you, Mr. Chairman and members of this Committee, for the opportunity to present our views.

AGRICULTURAL RESEARCH

Mr. BARR. Thank you very much. I am prepared to summarize in the interest of time. We apologize for not being here earlier. With me is Mr. Ritchie Smith, who is director of the Technical Research Service of the National Cotton Council of America.

I am John S. Barr, a cotton farmer from Oak Ridge, La., testifying for the National Cotton Council which represents producers, processors, and handlers in the 18 cotton-producing States from coast to coast.

The continued erosion of Federal funding for agricultural research is a matter of grave concern, threatening our Nation's well-being.

All segments of the cotton industry recognize the need to reduce inflation and Government spending. That is why in recent years we have gone along with what has been, in essence, a no-growth budget for agricultural research and a continued decline in cotton's share of research funding. We have done so reluctantly, hoping that needed increases would be provided in the future.

COTTON RESEARCH

Over the past two fiscal years, USDA cotton research went up only 4 percent, while the buying power of the dollar went down 12.5 percent. This has been the situation for nearly a decade. During this period, the number of scientist-years on cotton research has dropped over 25 percent; support personnel and operating funds have been cut back; research equipment and facilities have been downgraded; and several cotton research programs have been seriously damaged. Yet, we see that no increase at all is proposed for cotton in fiscal 1984. Adding to our concern is the recently released ARS 6-year plan which indicates further sharp reductions in several important areas of cotton and other agricultural research.

Congress has twice moved to turn the declining agricultural research situation around—adopting title 14 in both the 1977 and 1981 farm laws. Unfortunately, the program and funding levels indicated in that title have not yet been achieved, and the proposed budget, in fact, falls far short of implementing it.

ELIMINATION OF PEST MANAGEMENT FUNDS

The proposed budget would eliminate the $7.5 million in State Extension Service funds that are earmarked for pest management programs. Their sharp cutback would be devastating to the agricultural sector. Federal funds are used by the States only for professional staff to plan and supervise the programs. Farmers themselves pay nearly all other costs.

The elimination of these pest management funds would wipe out just a little over $1.5 million allocated for boll weevil management in 11 States. Since the boll weevil is now a serious problem in the Western States, in addition to the pink bollworm, we recommend $7.65 million for pest management which would provide $1.7 million for critically needed weevil control activities Beltwide.

PESTICIDE IMPACT ASSESSMENT

We also recommend restoring $1.7 million for Extension's important pesticide impact assessment program which gives us the ability to determine whether a proposed pesticide regulatory action is economically and technically feasible. And I might add, with the administrative problems in EPA, that might well be needed now.

THE APHIS BUDGET

A cut of $893,000 in APHIS funds for pink bollworm control would eliminate the program's Federal quarantine. The absence of Federal controls to keep this highly damaging insect from spreading to noninfested cotton-growing areas would seriously damage the program, and we strongly urge the committee to restore this cut.

The APHIS budget contains no funds for the Carolina boll weevil eradication program, nor has the supplemental funding called for in the 1983 conference report on appropriations yet been provided. This report expressed the understanding of Congress that USDA would submit a supplemental budget request for its 30-percent share if producers approved the program. At a referendum in January, producers voted to approve that program and agreed over a three-year period that they would pay an estimated $75 an acre or 70 percent of the total cost.

We strongly urge early approval of a $2.5 million 1983 supplemental for the Federal cost share. The program is to start in July, and several months' leadtime is necessary for planning and logistics work. With approval of the 1983 supplemental, $1 million will need to be added to APHIS' 1984 budget request to fund USDA's cost share for the program's second year.

Mr. Chairman, Senator Thad Cochran from Mississippi has executed a real leadership role in this effort, and we appreciate his role in that.

EXPORT CREDIT REVOLVING FUND

Finally, Mr. Chairman, we urge appropriations for the export credit revolving fund authorized by Congress in the 1981 farm bill to expand overseas markets, improve our Nation's trade balance, and further reduce inflation.

Thank you, Senator Abdnor and members of the committee. We certainly appreciate being able to present our views and answer any questions you may have.

Senator ABDNOR. We certainly thank you for coming before the committee. I know you have come a long distance.

This is a very, very important subject. I have to admit I am one of the northerners who fights the grasshopper and not the boll weevil. I certainly know what disease means in agriculture, because I have been a farmer all my life prior to coming to Washington. I don't know much about cotton. We are always interested in disease control, because it is the key to agricultural success.

We are very interested in ARS, and let me assure you that Chairman Cochran is on top of this. I can also assure you that the committee is very concerned; the committee staff is concerned. We have had ARS in here to discuss this 6-year plan, and they have given us the assurance that we will have an opportunity to look at it.

I know of the referendum you had down in your territory and the success that you have experienced with the boll weevil. Again, I can't give you anything concrete on the progress except we are on top of it. The committee staff has been working with APHIS and trying to find some funds. I don't know about a supplemental appropriation. That looks very difficult, but maybe we can reprogram some way.

Mr. BARR. We certainly appreciate your interest and the whole committee's interest in this subject area.

Senator ABDNOR. The staff pointed out to me that the committee did agree with the $500 million in the 1983 bill. As a matter of fact, I refused to sign the agriculture appropriation bill conference report, because the strong export language in the bill was changed. I don't know of anything more important to us in agriculture than seeing that we do promote our export markets. It just has to happen. So, most of us on the committee completely agree.

Mr. BARR. I appreciate your interest.

AMYOTROPHIC LATERAL SCLEROSIS SOCIETY OF AMERICA

STATEMENT OF SHOSHANA RIEMER, VOLUNTEER REPRESENTATIVE

ACCOMPANIED BY MARY ANN WILSON, VICE PRESIDENT FOR EDUCATION, THE NEUROFIBROMATOSIS FOUNDATION, METROPOLITAN WASHINGTON CHAPTER

Senator ABDNOR. Our next witnesses are Ms. Shoshana Riemer and Ms. Mary Ann Wilson. You are representing your own organizations that are part of the National Organization for Rare Disorders.

Ladies, you have been listening to us here. You may proceed in any manner you wish.

Ms. RIEMER. Thank you very much, Senator Abdnor. My name is Shoshana Riemer, and I am a volunteer representative of the Amyotrophic Lateral Sclerosis Society of America. We support the efforts of the National Organization for Rare Disorders to obtain additional funds for orphan drug research and coordination under the responsibilities of the FDA.

OFFICE OF ORPHAN PRODUCT DEVELOPMENT

This subcommittee has been a strong advocate for the millions of people suffering with orphan diseases, such as ALS, and has encouraged FDA to expand its efforts in the development of drugs for these diseases. After years of hard work, the Orphan Drug Act, Public Law 97–414, was enacted and signed into law just 3 months ago. In addition, in 1982, under the direction of this subcommittee, FDA established the Office of Orphan Product Development. We have now accomplished the initial step on the road to giving hope to the victims of orphan diseases by assuring them that we are doing everything possible to provide effective and affordable drugs in order to cope with their disorders.

Previously, ALS patients had little hope to attract research on drugs to treat their terrible degenerative and fatal disease. Although 80 percent of ALS patients die in 2 to 4 years, the patient population of 15,000 to 20,000 is far too small to make drug research and development attractive on an economic basis. However, the new law and the charter of the Office of Orphan Product Development have given encouragement to ALS patients and the many others having orphan diseases. Since its creation, this office has been responsible for the adoption of 18 orphan drugs and is currently seeking sponsors for three additional orphan drugs. Moreover, this office has done preliminary work on 26 other orphan drugs, and it is estimated that it will handle several dozen orphan drugs during fiscal year 1983.

While we are pleased with this record, Senator Abdnor and members of the subcommittee, we recognize that this is only the beginning of a long struggle. To accomplish our goal of discovering the cause and cure of ALS, we look to this subcommittee, as well as the efforts of the pharmaceutical industry and drug research scientists, to assist in developing drugs to relieve the terrible suffering and burden on both the ALS patient and the family. Presently, the ALS patient is faced with progressive deterioration and early death. As their muscles atrophy, the ALS patient loses the use of his or her hands and feet, as well as the ability to talk, breathe, and swallow. The patient soon becomes helpless, and round-the-clock care is essential to preserve life.

BUDGET RECOMMENDATIONS

Now, we have the means of giving increased hope to the ALS patient. Congress has already spoken. All we ask is that this subcommittee grant the funds to continue and, if possible, expand the efforts underway. We, therefore, request the following for fiscal year 1984:

One, approval of $1.5 million for the Office of Orphan Product Development to support operating costs, special projects, and other activities. To meet the congressional mandate, additional investment is required to expand the orphan drug research program.

Two, an increase of $500,000 in the budget of the National Center for Toxicology Research of the FDA to support the expanded work in the orphan drug area. As the momentum of the research program for orphan drugs increases, additional toxicology studies on orphan drugs will become necessary before such drugs can be given to humans.

Three, approval of $4 million grant authority under section 5(c) of the Orphan Drug Act. Since there are no regulations as to whether these funds will be delegated to NIH or FDA and since two different subcommittees have jurisdiction over the appropriations for these two agencies, this funding could be overlooked. It is, therefore, urged that this subcommittee approve the amount for FDA. However, should NIH receive this $4 million grant authority, it can then be resolved which agency would be entrusted with this function.

We thank this subcommittee for its pioneer effort in behalf of orphan drug research. Only through adequate funding of the orphan drug research program will it become possible to discover and market drugs for orphan diseases.

Thank you.

Senator ABDNOR. Thank you, Ms. Riemer.

Ms. Wilson?

NATIONAL NEUROFIBROMATOSIS FOUNDATION

Ms. WILSON. Mr. Chairman, my name is Mary Ann Wilson and I am a full-time volunteer. Today, I come before the committee wearing three hats.

Along with the representatives from ALS and Cystic Fibrosis, I am supporting efforts of the request of the National Organization for Rare Disorders. I am the vice president of education of the National Neurofibromatosis Foundation, which is a member of the National Organization for Rare Disorders. We represent 100,000 persons with neurofibromatosis in the United States. I am also wearing the hat of a mother whose 12-year-old son has neurofibromatosis, and I am also one of those desperate Americans that Mr. Vodra referred to before.

DEFINITION OF NEUROFIBROMATOSIS

If it is all right, I would like to briefly define and describe neurofibromatosis, or Von Recklinghausen's Disease, as some in the medical community still call it, or you may be more familiar with the term "The Elephant Man's Disease"—the term made popular by the media when the book, the play, and movie described the life of Joseph Merrick who had extreme deformities attributed to neurofibromatosis.

Neurofibromatosis (NF) is a neurological, genetic disorder of which tumors can form on the nerves anywhere in the body at any time during the individual's lifespan. It can affect all body systems. For some reason, and we don't know why, tumors which form on the optic nerve causing blindness occur predominantly in children under 6 years of age. Pseudoarthrosis, a condition in which a broken bone does not heal, strikes children under 12 years, and in most cases the limbs have to be amputated. Neurofibromatosis is linked to learning disabilities, epilepsy, mental retardation, and cancer. The hallmark of the disorder is multiple cafe-au-lait marks that look like birthmarks.

Another form of NF affects the central nervous system. There are no cafe-au-lait marks to signal the physician that his patient has NF. This form of NF strikes in the late teens and in the twenties. Often it is not diagnosed until the patient has sudden hearing loss, paralysis or seizures, and emergency brain surgery is performed and a neurofibroma is found.

Since NF is genetic, all of the people with the disorder are born with it, but only 50 percent have a family history of NF. That means that if the 50 percent who inherited the disorder did not pass it on, the general population would still be at risk for having neurofibromatosis. Then the incidence for having NF would be one in 6,000, rather than the one in 3,000 as it occurs today.

The disorder can manifest itself in many different ways and varying degrees of severity. It is totally unpredictable.

The cause of NF is yet unknown, and there is no pharmaceutical treatment to control the growth of tumors—only the surgical removal of the tumors which may grow back.

Last November, when my son had his regular annual checkup, the doctor found no changes in the two tumors he has, and he did not have any more tumors. We were absolutely delighted.

ORPHAN DRUG ACT

So when the Orphan Drug Act of 1982 began to move in the House and the Senate in late November and December, we worked very hard for its passage and the signing of the bill into law by President Reagan.

Perhaps, you all saw the Quincy program which was rerun last night on the Orphan Drug Act. That was one of the major movers of getting the people behind the Orphan Drug Act, and I was glad it was rerun last night. You saw how all of us came together and worked very hard for the passage of the bill.

With this bill, Congress, the general public, and the medical research community are beginning to pay attention to disorders and conditions, although they affect a relatively small number of people. This legislation gives us tremendous hope. We are encouraged in that Government, the scientific community, the pharmaceutical industry, and the health consumers have an opportunity and a forum in which to work together for the benefit of an even greater number of people. Finding just one key to an orphan disease can open the door to others. I, personally, am confident that with the existing medical technology and expertise, an effective treatment for NF will be found in the next few years and my son will not have to face the anxiety of not knowing what is going to happen—disability, discrimination, or early death.

Neurofibromatosis was first described in medical literature in 1768, It was not until the 1880's when Von Recklinghausen studied NF on a systematic basis that NF was described in a more comprehensive way. But it has been 100 years, Mr. Chairman, and we don't want to have to wait that long for an effective treatment to be found and made available to us.

This is why we are coming to you today, and we have the same three points of what we are asking for: the $1.5 million for the Office of Orphan Product Development; the $500,000 increase for the National Center for Toxicology Research; and, of course, the $4 million grant authority given by the Orphan Drug Act of 1982 for individual research scientists.

Thank you very much.

Senator ABDNOR. Thank you, Ms. Wilson. We appreciate your both coming before our committee. We know how dedicated you are to this great cause. It is difficult sometimes, I am sure, when the funds are not sufficient. Obviously, you are effective. The President did sign the bill. I am sorry I missed that on last night's program.

Chairman Cochran, I know, is very, very interested in this issue also. All I can tell you is we appreciate your testimony, and it is certainly going to be uppermost in our minds when we have to sit down and set funding priorities. No one can deny you have a great cause, and we appreciate the work you are doing. Thank you very much.

Ms. WILSON. Thank you, Senator.

CENTER FOR SCIENCE IN THE PUBLIC INTEREST

STATEMENT OF BRUCE A. SILVERGLADE, DIRECTOR FOR LEGAL AFFAIRS

ACCOMPANIED BY MITCHELL ZELLER, OFFICE OF LEGAL AFFAIRS

Senator ABDNOR. Our next witness is Mr. Bruce Silverglade, director for legal affairs, Center for Science in the Public Interest.

Please hold your oral testimony to 10 minutes.

Mr. SILVERGLADE. We request our statement be incorporated in the record, and I will summarize.

[The statement follows:]

STATEMENT OF BRUCE A. SILVERGLADE

Good afternoon. My name is Bruce Silverglade. I am Legal Director of the Center for Science in the Public Interest. With me today is Mitchell Zeller, an attorney in our Office of Legal Affairs. The Center for Science in the Public Interest is a non-profit consumer organization which specializes in food, drug and related health matters. CSPI was founded in 1971 and is now supported by approximately 30,000 dues-paying individual members.

Today I would like to discuss three regulatory matters pending at the Food and Drug Administration which CSPI has been actively involved with for the past several years. We believe our experience with the FDA on these matters suggests that a reallocation of budgetary resources together with a reordering of agency priorities is desperately needed.

1. FDA's Flawed Safety Review of Food Additives

The first matter I wish to discuss involves FDA's safety review of food additives. Since 1970, FDA has been reviewing the safety of all food ingredients previously considered Generally Recognized as Safe or "GRAS." In July 1982, as part of the GRAS Review, FDA studied a family of chemicals called sulfiting agents and issued a proposed rule affirming them as safe for use in food.

FDA based its proposal to affirm these substances as safe on a scientific literature survey completed in 1976. Before publishing its proposal, FDA failed to fully update the literature search upon which the proposal was based. Last October, my organization, the Center for Science in the Public Interest, petitioned FDA to ban or severely restrict the use of sulfiting agents as unsafe. We took this action after discovering six studies published between 1977 and 1982 which demonstrate that sulfiting agents pose life-threatening health hazards to asthmatics and other sensitive individuals.

In recent months there have been many reported cases of persons who had asthma attacks in restaurants due to sulfite-treated food. Last November 10th, two weeks after we informed FDA about life-threatening reactions to sulfiting agents, Mr. Gideon Lawhon, an Arizona man, became the first known victim of sulfite-treated food. That day, Mr. Lawhon, an asthmatic, and his family went to lunch. After eating his meal, Mr. Lawhon started feeling very uncomfortable and stated there was something strange about the food. He then collapsed on the floor. The family called the paramedics, who rushed him to the hospital where he died hours later. A subsequent investigation revealed that the lettuce in his meal was in fact preserved with sulfites.

Just last week, in his remarks before this subcommittee, Commissioner Hayes said FDA will act to ban unnecessary uses of sulfiting agents and to ensure that sensitive persons are alerted to the presence of these chemicals in the food supply. Unfortunately, FDA's actions to date fall far short of the Commissioner's stated intentions. Today, because of FDA inaction, the public continues to be exposed to the presence of these potentially deadly chemicals.

The broader implications of the sulfite case are clear; the regulation of additives by the FDA provides only the illusion of safety.

FDA often appears to bend over backwards to excuse problems that turn up in animal (or human) studies, and are pressing for legislation that would weaken the law even further. Some of the additives for which there is evidence of hazard, but whose use has not been restricted, include BHT (butylated hydroxytoluene), BHA (butylated hydroxianisole), propyl gallate, red dye 40, blue dye 2, citrus red 2, sodium nitrite, caffeine, and saccharin (though we applauded FDA's earlier attempts to ban this synthetic sweetener). There is evidence that these chemicals cause cancer or other serious health problems. With the exception of caffeine and saccharin, FDA has done nothing to advise the public of potential hazards and to take regulatory action.

Current safety assessments have clearly been compromised. We call on the subcommittee to request that FDA fully commit itself to what we submit must be a budgetary priority. FDA's proposed budget for 1984 calls for the reduction of eleven full-time equivalent food safety staff positions. We also note that between 1979 and 1981 the number of consumer safety specialists at FDA declined 5.3%. If the sulfiting agent GRAS Review fiasco is not to be repeated, the Bureau of Foods must be staffed with enough professional, quality personnel to ensure that the job of protecting the American public from unsafe food additives gets done. The FDA must once again make food additive safety a key priority.

2. FDA's Inadequate Sodium Labeling Program

FDA's handling of another food additive, sodium, also merits special attention. Virtually all medical authorities in the United States, including the Surgeon General, agree that sodium is a major factor in causing hypertension and related diseases. Sixty million Americans suffer from various degrees of hypertension. Hypertension increases the risks of heart disease and stroke which together account for close to a million deaths in America each year. In addition, FDA states that hypertension-related diseases cost Americans about $8 billion in health care costs each year.

Currently, it is very difficult to avoid a diet high in sodium. The greatest source of sodium in our diets is processed foods, not the salt shaker. Therefore, using less salt at the dinner table, alone, will rarely solve the problem of excess sodium consumption.

Members of Congress, thousands of health professionals, and other numerous health organizations, including FDA itself, have recognized that steps need to be taken to assist Americans in lowering their sodium intake. FDA's efforts towards this goal, however, have been totally unsatisfactory. For example, in April 1981, FDA announced a voluntary sodium labeling plan in testimony before the House Subcommittee on Investigations and Oversight of the Committee on Science and Technology. The plan called for FDA to encourage the food industry to voluntarily label products for sodium content so that consumers could shop wisely and purchase brands of food that were low in sodium. Commissioner Hayes promised that a mandatory regulation would be proposed if the food industry did not voluntarily comply with the plan in one year.

However, FDA admits that its voluntary plan--even if supported by large numbers of companies--will still leave about one-half of all processed foods unlabeled. Furthermore, when this program was announced two years ago, about 13% of processed foods were labeled for sodium content. Today, according to recent FDA figures, only 19% are labeled, an increase of a mere 6%. Thus, even by FDA's own measure of "success," the program, two years later, has been a miserable failure.

In our view, Mr. Chairman, the FDA's voluntary labeling program can never work because only manufacturers of foods which are already low in sodium have an incentive to voluntarily disclose sodium content. Producers of high sodium food have no such incentive to comply with the voluntary plan and in all likelihood few will do so.

It has now been more than five years since we began urging FDA to require sodium labeling, as well as reduce the sodium content of processed foods. FDA's refusal to take the necessary steps to protect the public health has compelled us to file suit against the agency in Federal District Court. We regret the necessity of this action but believe recourse to the courts is our only alternative.

We call on the subcommittee to take a hard look at the resources that FDA, in our view, is wasting on its voluntary program. Such resources could better be used in the development of a proposed rule that would require sodium content disclosures on all processed foods. We further call on the subcommittee to hold Commissioner Hayes to his promise that the FDA voluntary labeling plan would be re-evaluated after one year. It is now two years since the plan was first announced and the results can only be interpreted as disappointing. It is now time to reexamine the resources being devoted to this program and determine how funds may be more efficiently spent on the development of a mandatory labeling initiative.

3. Delays in FDA's safety and efficacy review of OTC drugs.

FDA commenced a review of the safety and efficacy of over-the-counter (OTC) drugs more than 10 years ago. The review calls for advisory panels of outside experts to review the safety of various classes of OTC drugs and issue a report with recommendations to the FDA. FDA then publishes the report in the Federal Register for comment and later proposes a rule regulating all factors relating to the safety and efficacy of the class of drugs under review. That is how the OTC review is supposed to work. In reality, the OTC review has had a checkered history, proceeding at an extremely slow pace that has frustrated the drug industry and consumer organizations alike.

We believe that the slow pace of the OTC review of one particular class of drugs, weight control diet aids containing an amphetamine-like substance known as phenylpropanolamine (PPA), may be taking an especially large toll on the public health.

The safety review of PPA-based diet pills has been pending at the FDA since 1978. At that time, an FDA Advisory Review Panel tentatively recommended that PPA-based aids should be deemed safe and effective.

However, FDA failed to reveal this advisory report and disclose to the scientific community the studies relied on by the panel until February 1982, almost four years after the advisory panel completed its work. At that time, we were able to confirm that the panel's safety recommendations were based on a review of studies involving the use of PPA as a nasal decongestant, not a diet aid. Because overweight individuals disproportionately suffer from a number of medical conditions for which PPA is contraindicated (hypertension, heart disease, thyroid and kidney diseases), the relevancy of these studies and the panel's recommendations must be seriously questioned.

Furthermore, studies conducted after the panel submitted its report to the FDA demonstrate that currently acceptable doses of PPA can trigger marked rises in blood pressure, even in healthy medical students and indicate that PPA may cause severe behavioral disorders. FDA did in fact note in its 1982 Federal Register announcement that new studies completed between 1978 and 1982 raise doubts about the panel's findings. Yet, the agency has taken little action to protect the public. In fact, the FDA has not even published a proposed rule on PPA-based diet pills, thereby blocking any further progress on the review of PPA-based diet pills. FDA's dilatory attitude on this matter is totally inappropriate in light of the serious health hazards raised by the use of PPA for weight control, as well as new studies generally questioning the safety and side effects of this substance.

We urge the subcommittee to request that FDA, at a minimum, provide a date when a proposed rule governing the OTC use of PPA will be issued. In addition, we request that the subcommittee urge FDA to report on the progress of the entire OTC review program.

These three matters are merely illustrative. FDA has long ignored enforcement of labeling regulations which prohibit deceptive trade practices, failed to adequately monitor chemical contaminants, and has seldom provided staff with sufficient resources to conduct food additive safety reviews.

Such problems must either be remedied by an infusion of new funds or a reprioritizing of FDA's food and drug programs. In light of the present fiscal crisis, only the latter step appears realistic. We therefore reiterate our plea that scarce funds not be wasted on voluntary labeling programs that are doomed to failure, or reallocated, as we suspect, to such industry priorities as expedited approval of "new" drug applications and food additive petitions. Rather than cutting back on the number of consumer safety specialists and other personnel, FDA should make a commitment to allot the full amount of resources that is needed for effective regulation. Protecting the public health has traditionally been, and must remain, FDA's number 1 priority.

SODIUM BISULFITE

Mr. SILVERGLADE. With me is Mitchell Zeller, an attorney in our Office of Legal Affairs. Dr. Jacobson expresses his regrets.

As you know, the Center for Science in the Public Interest is a nonprofit consumer organization which specializes in food, drug, and related health matters. We would like to thank the subcommittee for this opportunity today.

I would like to get right to the point. We are concerned about a dangerous food additive called sodium bisulfite. It has literally caused people to drop dead in restaurants. The FDA has done very little about this problem, and in fact, in their budget they have cut by one-third the amount of funds spent on food additive safety regulation as expressed as a total percentage of FDA appropriation.

Let me give you a little history. Since 1970, FDA has been reviewing the safety of all food ingredients that were previously considered safe. In 1982, as part of the review, FDA examined a family of chemicals called sulfiting agents, including sodium bisulfite, and issued a proposed rule in the Federal Register affirming them as safe for use in food.

FDA based its proposal on a 6-year old scientific literature survey, and before publishing this proposal FDA failed to fully update the literature surveys on which it is based. Last November, we petitioned FDA to ban or severely restrict the use of sulfiting agents as unsafe. We took this action after discovering six studies in the last 5 years. FDA had ignored or failed to uncover these studies. Mr. Chairman, I emphasize any college student doing a competent research job on a term paper would have found the studies in the library. They demonstrated that sulfiting agents pose life-threatening health hazards to asthmatics and other sensitive individuals.

Last November 10, Mr. Gideon Lawhon, an Arizona man, became the first known victim to die after eating sulfite-treated food.

The action taken by the FDA provides only the illusion of safety. FDA has clearly compromised their safety assessments, and we deride their cut in the budget for this important function.

In addition, between 1979 and 1981, the number of consumer safety specialists at the FDA declined by 5.3 percent. If the sulfiting agent review fiasco is not to be repeated, FDA must have enough qualified personnel to insure the job of protecting the American public from unsafe food additives gets done.

SODIUM LABELING

The second matter I would like to mention is sodium labeling. I will not belabor the sodium-hypertension relationship. Hypertension increases the risk of heart disease and stroke, which account for over 600,000 deaths annually and cost Americans about $8 billion each year. Thousands of health professionals, including the FDA itself, have recognized that steps need to be taken to assist Americans in lowering their sodium intake.

Sodium does not just come in the salt shaker. It comes from processed foods. Until Americans can be assisted in lowering their sodium intake through labeling, we will not be able to reduce our sodium consumption.

In April 1981, FDA announced, with great fanfare, a voluntary labeling program. FDA has already admitted that its voluntary plan, even if supported by large numbers of companies, will still leave about half of all processed foods unlabeled. When FDA announced this program 2 years ago, about 13 percent of the processed foods were labeled, and today only 19 percent are labeled—an increase of a mere 6 percent. Thus, even by FDA's measure of success, the program has been a miserable failure.

In our view, Mr. Chairman, the FDA's voluntary labeling program will never work, because manufacturers of food which are high in sodium will never have an incentive to disclose the sodium content. We ask the subcommittee to take a look at the resources FDA is wasting on the program. In testimony before this subcommittee, Commissioner Hayes has stated that he mailed information about the sodium program to 500,000 health professionals in this country. We submit that these health professionals already know about the link between sodium and hypertension. We cannot see why the FDA would spend $100,000 in postage to inform people who already know about this problem. What needs to be done is the consumer must have information on labels so they can choose foods which are lowest in sodium.

These and similar problems must be remedied by an infusion of new funds or a reprioritizing of FDA's food and drug programs. In light of the present fiscal crisis, only the latter step appears realistic. We submit that the FDA should be spending less funds on matters such as investigating honey adulteration and more funds on preventing dangerous food additives from entering our food supply. I, personally, would not be upset if a jar of honey had a little sugar or corn syrup in it. I would be very upset if I knew my food at a restaurant had a deadly chemical.

I would like to thank you again for the opportunity. I would be glad to answer any questions.

Senator ABDNOR. Thank you. I just want to say to both of you that our chairman would like to have been here. He was here but had to leave. He has a great interest in this and has discussed the subject of sulfiting with FDA when they testified before the committee. He asked them very detailed questions. So I am sure the FDA knows of the subcommittee's interest in this matter.

We really have little else to report at this time. We know of your interest in the subject, and your statements will be given due consideration. I just wanted you to know that Chairman Cochran has already taken the initiative and has asked some detailed questions of FDA.

We do thank you for your attendance and your statement.

Mr. SILVERGLADE. Thank you.

AMERICAN VETERINARY MEDICAL ASSOCIATION

STATEMENT OF W. M. DECKER, D.V.M., DIRECTOR

Senator ABDNOR. We now have the American Veterinary Medical Association, Dr. Decker, director.

Dr. Decker, we welcome you to the committee. We will insert your full statement in the record.

Dr. DECKER. We appreciate that, Mr. Chairman.

[The statement follows:]

STATEMENT OF W. M. DECKER, D.V.M.

The American Veterinary Medical Association appreciates this opportunity to make recommendations regarding appropriations for the Department of Agriculture for FY 1984. Our recommendations pertain primarily to adequate funding for brucellosis control and animal welfare activities of the Animal and Plant Health Inspection Service, and for animal disease research and post-doctoral education grants administered by the Cooperative State Research Service. We make these recommendations out of concern for the continued improvement of the health of livestock and the productivity of animal agriculture. We are concerned, also, regarding the future resources available to veterinarians to prevent and control animal diseases.

Animal and Plant Health Inspection Service programs have been effective and productive, through cooperation with state governments and private practicing veterinarians, in reducing and controlling livestock diseases. These programs are essential elements in increasing the agricultural productivity of the Nation. We are doubtful that the livestock producers and the states will, or can, maintain these programs without substantial federal participation. The budget appears to us to invite devastating increases in the incidence of several diseases and additional losses for livestock producers.

The 1984 budget proposes elimination of the scabies program and reductions for the brucellosis control program, the animal welfare program and poultry disease programs.

With respect to the brucellosis control program, we are concerned that the plan expressed last year to phase out the program, while not expressed in the budget this year, may continue. We are opposed to the proposed reduction from $84.346 million for 1983 to approximately $52 million for 1984. We doubt that the states will provide additional funds to compensate for the reduced federal share. The states may choose to reduce funding also, and the gains of many years of efforts to control this disease will be lost. The consequences of letting this budget stand are serious. They include:

1. Reduced interstate marketing of cattle

If federal financial support is terminated and the low-incidence states try to maintain their current status, experience indicates there will be an array of new state regulations governing interstate movement, including import embargoes.

2. Reduced foreign marketing of cattle

Foreign marketing of cattle would be greatly reduced, and the export market for swine products to European Economic Community countries would be lost.

3. Increased incidence of bovine brucellosis

Unless the vaccination level remains relatively high, which is unlikely without federal financial support, the incidence of brucellosis can be expected to increase.

4. Increased incidence of brucellosis in man

Brucellosis is a disease of man as well as animals, and it is a serious disease in man causing prolonged debilitation. If the incidence of the disease in cattle and swine increases, the human disease can be expected to increase accordingly.

We recommend the brucellosis control program be funded at a minimum of $70 million for 1984 with the expectation of similar appropriations being required in 1985 and 1986. That, we believe, would produce the control goals desired and should permit lower funding in 1987 and thereafter.

APHIS animal care activities directed to the enforcement of the Animal Welfare Act and the Horse Protection Act have been chronically underfunded. The animal care program has not met the expectations of those who encouraged federal legislation for the protection of animals in research and exhibit enterprises and those who are concerned for the humane treatment of animals. The states can't do this job and in many cases have no legislative authority to do so. Even if the states along with other organizations were financially able to undertake animal welfare inspection, we question the national effect of the assorted variable standards and procedures which would impact research institutions as a result.

Several proposals were considered in the 97th Congress to increase federal efforts directed to animal welfare improvement. Similar proposals are being considered again in this Congress. We think it most appropriate to fund properly the existing program, so it may accomplish its purposes and may serve as a base to build on for future requirements. The 1983 level of funding should be maintained for 1984 as the minimum operating program of animal care in APHIS.

The Food Safety and Inspection Service must assure consumers of safe, wholesome meat and poultry products. We are interested in the activities in the agency which are directed to refining inspection procedures to make them more compatible with current processing technology and more efficient personnel utilization. The agency, we believe, is very carefully evaluating every proposed change to be assured that food safety will not be compromised by modifications in inspection procedures. We are also strongly supportive of the current educational activities of FSIS and the Extension Service to aid livestock and poultry producers in avoiding losses due to residues of chemical substances. Our primary concern is that consumer health is protected and the safety and wholesomeness of meat and poultry products are assured. If the anticipated more efficient procedures are applied it appears to us that the executive budget will permit FSIS to continue to meet its responsibilities. But, if the necessary authorizing legislation is not enacted, we understand that the appropriation for FSIS needs to be higher than the budget request to perform its mission.

In the budget for the Cooperative State Research Service, our concerns center on funding for animal disease research. It seems incongruous that in a nation which utilizes animals so extensively and so diversely the first specifically designated funds to support animal disease research and to provide for the post-doctoral training of young veterinary medical scientists in its schools and colleges of veterinary medicine were authorized as recently as 1977 by P.L. 95-113. That legislation authorized up to $25 million annually to be distributed in a formula format. Another $15 million was authorized annually for research on animal diseases of regional and national importance. Beginning in FY 1979, funds have been appropriated as follows:

(in millions of dollars)

	1979	1980	1981	1982	1983	Budget 1984
Formula (Sec. 1433)	5.0	6.0	6.5	5.76	5.76	-0-
Special Grants	10.0	7.0	5.05	7.156	7.156	7.156
Totals	15.0	13.0	11.55	12.916	12.916	7.156

While the appropriations represent a small portion of the total authorized amount, and while the full authorized amounts are realistic and could be used very productively, the monies appropriated have been effectively utilized. Interest in pursuing animal disease research is reflected in a simple statistic. Over the course of the first two years of the Special Grant Program the nation's colleges of veterinary medicine and the departments of veterinary and animal sciences responded by submitting 1,011 research proposals totalling $154 million. Only 145 (14.3 percent) could be funded with awards totalling $15.8 million (10.3 percent of the requested amount). This is strong testament to the interest and desire on the part of veterinary medical scientists to engage in animal disease research. The research capacity is in place and can be made highly productive with adequate support. Research support at the universities is also needed to assure a continuing supply of well-trained young scientists emerging from the system.

The 97th Congress enacted legislation (P.L. 97-98, "Agriculture & Food Act of 1981") maintaining the $25 million authorization level for formula funding (Sec. 1433 of P.L. 95-113) and increasing the authorization level from $15 million to $35 million for competitive funding (Sec. 1434) to address animal disease problems of regional and national importance. The intent of Congress in recognizing the importance of this effort is abundantly clear.

We strongly support the President's proposal to make a real increase in the research efforts of ARS. However, the veterinary medical colleges and state agricultural experiment stations are vital links in a national continuum which historically have had and currently have their fingers on the pulse of production agriculture. The department appears to down-play the importance of this network. It should be recognized also that the performance of research at the most basic, fundamental level is as much the responsibility and role of the university located research scientist as it is his/her counterpart performing in a federal laboratory. While the federal animal disease research programs should be sustained, it should be pointed out that there is some distance separating those engaged in such research from the day-to-day production problems being faced, and that the federal programs are in no way designed, nor do they have the responsibility, to develop and produce the new veterinary medical research scientists which will continue to be needed.

We concur in the recommendations made by the National Association of State Universities and Land Grant Colleges for FY 1984 funding in CSRS:

(a) $8 million for formula grants authorized by Section 1433

(b) $4 million for projects directed to regional and national animal disease problems authorized by Section 1434

(c) $7.156 million in animal health and disease special research grants as recommended in the executive budget

We also recommend, as did the National Association of State Universities and Land-Grant Colleges, the beginning of a new competitive graduate fellowship program. This we believe is a vital ingredient, along with adequate funding of research in colleges of veterinary medicine and the state agricultural experiment stations, in attracting and preparing the agricultural research science personnel for the future. We concur in the recommendation of an appropriation of $10 million in 1984 for this purpose.

Thank you for this opportunity to comment on these appropriations which we believe are vital to the future of animal agriculture and the Nation's food of animal origin.

ASSOCIATION'S RECOMMENDATIONS

Dr. DECKER. Others have commented on every point that we wish to speak on, and I would just like to give you our recommendations.

We are talking about two programs in APHIS—the brucellosis control and animal welfare—and in the Cooperative State Research Service—animal disease research and training of agricultural scientists.

In addition to those statements that we made in the document we submitted, I have been asked to indicate to you that we are very much in favor of the funding for animal cancer research. Senator Melcher spoke to the subcommittee the day before yesterday, I believe, on this subject. As you know, that authority was enacted in 1980. It has not been funded. We have supported the concept of the bill when it was being considered, and we are in full support of beginning to fund that program.

We have limited our comments simply to those programs that are currently funded.

BRUCELLOSIS

With respect to brucellosis eradication or brucellosis control, we believe that some reduction can be made over the current level of funding, but we don't agree with the amount of the reduction that is proposed by the administration. We feel that that would weaken the program drastically and prolong the time that it would take to accomplish the end results. For that reason, we think that it would take approximately $70 million for each of the next 3 years to bring that program to a point where very major reductions could be considered after that time.

ANIMAL WELFARE

With respect to the animal care programs—the enforcement of the Animal Welfare Act in APHIS—we were concerned, and we were pleased to see the restoration of the funding rather than going with the budget proposal to make a very significant reduction. We hope that that same action might be taken this year. We agree with the comments of others that that is absolute minimal funding and that ideally there ought to be more than the $4.8 million provided for enforcement of the Animal Welfare Act, but at least that much should be provided again for that important activity.

ANIMAL DISEASE RESEARCH

With respect to the Cooperative State Research Service, we have been interested over the years that that authority has existed in the funding for animal disease research in the colleges of veterinary medicine and the State agricultural experiment stations. The National Association of State Universities and Land-Grant Colleges testified on this issue, and we concur totally in their recommedations, which for this range of programs provide $8 million for funding for formula grants under section 1433 of the authority, $4 million for project grants for regional and national problems under section 1434 of the authority, and $7.156 million for special grants, which is the amount recommended in the President's budget.

NEED FOR AGRICULTURAL SCIENTISTS

We also recommend your consideration of a new category of funding, and that would be to begin a program of fellowships for the training of agricultural scientists. The whole field of agricultural science is populated by a relatively old group of scientists, a group of scientists who will be retiring at a higher rate during the next decade. That indicates that a particular effort ought to be made now to develop the new scientists of the next generation, and those we know include veterinary medical scientists along with all the rest that are important to agriculture.

Mr. Chairman, if there are any questions, I would be happy to try to answer them.

Senator ABDNOR. Dr. Decker, this committee has traditionally shown strong support for the very subject matter you have talked about. We are going to have to sit down and do our best to protect our domestic livestock industry. I am certainly aware of the need for the brucellosis program. I had it in my herd at one time. We have a problem finding dollars, but some way, we hope we can come up with some answers.

You have been very patient. You have had to wait a long time. We appreciate your testimony. Thank you.

Dr. DECKER. Thank you, Senator Abdnor.

ASSOCIATION FOR BIOMEDICAL RESEARCH

STATEMENT OF FRANKIE L. TRULL, EXECUTIVE DIRECTOR

Senator ABDNOR. Our last witness is Ms. Frankie Trull, executive director of the Association for Biomedical Research.

I guess we saved the pretty one for last.

OPENING REMARKS

Ms. TRULL. It is a delight we are running ahead of schedule. Usually, I am on 2 or 3 hours late, so thank you for that.

Mr. Chairman, members of the committee, I am Frankie L. Trull, speaking to you today on behalf of the Association for Biomedical Research, of which I am the executive director. The Association for Biomedical Research is the only national scientific trade association representing both industry and academia on the issue of the use of laboratory animals in biomedical research and testing. Our membership includes some 200 universities, hospitals, medical and veterinary schools, pharmaceutical, chemical and contract testing companies, animal breeders and suppliers, and research institutes.

ANIMAL WELFARE

This Association's primary objective is to help assure the continuation of responsible biomedical research under properly established conditions. Thus, we would like to voice our opposition to the proposed cutback of APHIS veterinary service inspection funds from $4.9 million to $1.5 million. As you may recall, this same budget cut was proposed by the Reagan administration for fiscal year 1983; however, this committee saw the wisdom and necessity of restoring these funds last year to the fiscal year 1982 level for the purpose of administering the animal welfare inspection program.

In view of the ever-increasing concern of the general public regarding the care and treatment of laboratory animals, it would be ill-advised and counterproductive to eliminate the only existing Federal inspection program.

To make this budget cutback even more perilous, the administration has proposed that the responsibility for enforcing animal welfare activity be turned over to "States, industry, humane societies, and individuals." This proposal, if enacted, would pose tremendous potential problems for the biomedical research community.

At the present time, and as a result of the 1976 amendments to the Animal Welfare Act, the authority for enforcing the provisions of this act resides exclusively with APHIS. The administration's proposal to transfer this activity to the States would require that all 50 States introduce and pass laws creating legal entities which would have the authority to enforce the Animal Welfare Act. In the unlikely event that all 50 States should decide to assume this responsibility to operate these newly constituted bodies, implementation would take years and would require the additional appropriation of State funds. The fact of the matter is that many research facilities are supported by Federal funds. So, it is entirely appropriate that these facilities be governed by existing, appropriately funded Federal authority. For those institutions and companies which have research facilities in more than one State, attempting to comply with different sets of standards and guidelines would be extremely difficult and expensive.

The suggestion that local humane organizations take over the inspection program is equally unworkable. Individuals from these organizations lack the technical expertise needed to conduct such inspections, which could result in increased problems and confusion. What is more, the philosophical differences of these organizations could seriously undermine the conduct of important research projects.

In addition, the APHIS inspection program provides the public with assurances that animals in research facilities are receiving at least the minimum required standards of care and handling. The general public is increasingly concerned that research animals are protected by Federal regulations. To eliminate the APHIS program breaches public trust.

The Association for Biomedical Research is also concerned that important medical research would be impeded by this proposed transfer of authority. This is not to say that the current APHIS inspection program cannot be improved. Both APHIS and the biomedical research community acknowledge the weaknesses in the present inspection procedures and hope to reduce these problems as they revise policies to include more detailed and specific guidelines.

In fact, APHIS has begun to restructure its program and is making every effort to improve the quality of its inspection guidelines and procedures, which, of course, is extraordinarily difficult considering the very limited financial resources currently available to administer this program.

SENATOR DOLE'S BILL

During your deliberations regarding the future of the APHIS inspection program, this subcommittee should not overlook the fact that Senator Dole has recently introduced a bill, S. 657, which has been referred to the Senate Agriculture Committee, and which, if enacted, would dramatically expand the responsibilities of APHIS. This Senate legislation includes no authorization for appropriations. Yet, this bill has the support of the animal welfare community, and it is expected that a companion bill will be introduced in the House soon.

For this committee's information, S. 657 requires that all USDA-licensed research facilities establish animal studies committees which are responsible for complying with many new standards regarding the care and treatment of laboratory animals. The Secretary of Agriculture is responsible for administering this expanded APHIS program and for assuring that all research facilities are in compliance with these new mandates. Without increased funds, it is this Association's opinion that it would be impossible for APHIS to assume any new responsibilities.

ASSOCIATION'S RECOMMENDATION

The issue of the use of laboratory animals for biomedical research and testing has come under increasing scrutiny by the media, the public, and legislators. Therefore, the scientific community would like to see the current APHIS program funded at an increased level in order that they may conduct an inspection program with highly skilled personnel, rather than the minimal, bare bones program currently in existence. This committee should also recognize that, unlike many issues, restoration and increase of APHIS funds are supported by both the scientific community and animal welfare organizations.

In closing, I would like to emphasize our recommendation that the APHIS inspections budget continue to be funded at least at existing levels. Medical and biological research cannot enjoy public support and confidence without an acceptable, national regulatory framework, and the present APHIS program is worthy of support.

On behalf of the Association, thank you for permitting me to comment on this issue. I would be happy to answer any questions you have.

Senator ABDNOR. Fine, we thank you.

We just received much the same message from a number of you who speak for a large group of experts in this field. I think this committee, as I said to Dr. Decker, generally has agreed with you. It becomes tougher each year to find the dollars, and we can't always go along with the recommendations.

It is interesting to see that Senator Dole is putting more responsibility on them. We are always guilty of giving more responsibility without the money. So, we will keep that in mind.

Thank you very much.

Ms. TRULL. Thank you.

CONCLUSION OF HEARINGS

Senator **Abdnor**. This concludes today's hearings and the subcommittee's hearings generally on the fiscal 1984 budget. Now, all we have to do is come up with some answers. We certainly appreciate the valuable information that has been provided to us.

With that in mind, the subcommittee will stand in recess.

[Whereupon, at 12:25 p.m., Thursday, April 21, 1983, the hearings were concluded and the subcommittee was recessed, to reconvene at the call of the Chair.]

MATERIAL SUBMITTED SUBSEQUENT TO THE HEARING

[CLERK'S NOTE.—The following correspondence and statements were not presented at the hearing, but were submitted to the committee for inclusion in the record subsequent to the hearing:]

STATEMENT OF HON. ROBERT W. KASTEN, JR., A U.S. SENATOR FROM WISCONSIN

Thank you for the opportunity to testify before the subcommittee this morning. I would like to congratulate you, Mr. Chairman, for the time and effort you have put forth throughout these hearings.

The committee's task in arriving at funding levels for next year's agriculture programs is not an easy one. Overall budget constraints make it necessary for us to cut corners in various programs. I believe this can be done without jeopardizing the basic thrust of these programs. It may result in new initiatives being placed on the back burner, yet this is something we cannot avoid.

Following are recommendations I have for the FY 84 Agriculture Appropriations bill.

- Special Milk Program--concur with the Administration request for FY 84 funding level of $20.2 million. This amount will enable the program to carry on at last year's level. It will continue to ensure nutritional assistance for children in those schools which do not participate in other child nutrition programs.

Recommendation: Fund at FY 83 level--$20.2 million.

- Pseudorabies Pilot Project--A pilot project has been proposed for the eradication of pseudorabies, a herpes virus swine disease, in five states. This project was recommended for funding by the House during conference markup last fall for FY 83, but failed to be included in overall funding.

In January, USDA/APHIS made available $400,000 for initiation of this project. In order to continue with the eradication effort, additional funding is required. The states who volunteered for this project which include Iowa, Illinois, North Carolina, Pennsylvania and Wisconsin, will supplement federal funds with state funds. For example, in Wisconsin the state will contribute approximately $182,000 and the federal portion will total approximately $172,000.

Therefore, I recommend the committee appropriate an additional $2,384,000.00 in the pseudorabies line item of the APHIS budget. This additional funding is to be used to continue with the pilot project in those five states working to eradicate this disease.

Recommendation: Pseudorabies line item in APHIS budget. Funding level for FY 84--$2.66 million.

- Animal Health Formula Funding (Sec. 1433) CSRS.

The committee approved funding for this program last year at a level of $5.76 million. The emphasis of this program is directed at research and detection of disease that affects cattle, poultry and swine. In isolating contaminent organisms of animal disease, treatments and cures can be affected which will lead to decreased costs and increased animal productivity.

Recommendation: Fund at FY 83 level--$5.76 million.

- Renewable Resources Extension Act.

Passage of the Renewable Resources Extension Act of 1978 included a $15 million authorization for program start up. With the exception of $2 million appropriated last year, this program has never realized full funding.

Extension specialists in the 50 states, work with owners of non-industrial, privately held timber tracts. Programs emphasize prudent utilization of resources and encourage reforestation/cultivation of wooded acreage. Management of wildlife habitats are also acknowledged in this program.

I strongly urge the committee to fund this program at an increased level over last years recommendation. This will allow activities already initiated to continue and further activities to commence as directed by the Renewable Resources Extension Act of 1978.

Recommendation: Fund for FY 84 at $7.5 million.

- Dairy Forage Facility.

The objective of the dairy forage facility is to reduce production costs of cattle ranchers and dairy producers. This can be accomplished through the development of new technology to more fully utilize forage producing potentials in the U.S.

This facility is the only one of its kind in the nation. It serves cooperative programs of seven state experiment stations termed Cluster Locations. These include the University of Missouri, Iowa State University, University of Minnesota, Michigan State University, Ohio Agricultural Research and Development Center, Cornell University and Pennsylvania State University.

At the time the Dairy Forage Research Center was proposed, an annual appropriation of $5.0 million was projected as necessary to adequately fund the facility. In FY 82, funding was $2.1 million; and in FY 83, funding was $2.6 million. It is my understanding the Administration is proposing funding for FY 84 at the FY 83 level. I will support this level of funding, but wish to go on record that an increase in funding for FY 85 will be necessary. Efficient utilization of facilities, manpower, and research capabilities will not be met through decreased funding.

Recommendation: Fund at FY 83 level--$2.6 million.

- Johne's Disease.

Johne's disease is a para-tuberculosis bacteria that strikes cattle. I am attaching some background material on this subject to be included in the record.

In brief, research needs of this disease are not being addressed on the federal level. Control programs for Johne's disease have been given a low priority by government regulatory officials. Although cattle owners and veterinarians in some parts of the country have reported alarming numbers of cases of Johne's disease, the true incidence is still unknown.

Testing for herds with this disease, for either positive or negative results, takes up to four months. During this time, if a herd is infected, the disease can be transmitted to the rest of the herd or spread to other herds without anyone's knowledge. Diagnostic techniques for Johne's are inadequate. Federal priority in combatting brucellosis is necessary and great strides in controlling this disease is evident. I do support the brucellosis eradication effort, yet feel emphasis in developing an effective vaccine, reduced time in determining infected herds, collection and sampling of tissue in diseased carriers of Johne's animals is needed.

Therefore, I recommend that $5.0 million of the total appropriation for the brucellosis line item in APHIS be directed for research of Johne's disease.

Recommendation: Funding for research of Johne's disease for FY 84--$5 million. Funding will come directly from the FY 84 appropriation for the brucellosis line item in the APHIS budget.

- Funding for Advanced Education in the Agriculture and Life Sciences.

If the U.S.' role as leader in producing food and fiber for our own and the world is to continue, we must have the trained personnel in our classrooms, laboratories, businesses and communities to sustain this role.

USDA has predicted shortages in agricultural scientific and professional personnel. Projections show an annual need for 60,000 new graduates in agriculture between now an 1985. Actual graduates number 52,000 annually. The difference is too great to ignore.

I feel the committee has a responsibility to take action in fostering continued education in the agriculture and life science disciplines. Should we continue to wait in appropriating funds for this program, it will create long-term losses.

Therefore, I recommend that the committee appropriate $10 million in FY 84 to assist our young men and women pursuing graduate and post graduate degrees in agriculture and life science. Approximately 650-700 students would be supported through this level of funding.

Recommendation: Fund for FY 84 at a level of $10 million.

- Retention of the ARS Bee Research Facility at Madison, Wisconsin.

I am very disturbed about the actions taken by USDA/ARS in relocating bee research labs to Tucson, Arizona. The labs scheduled for relocation are the Laramie, Wyoming lab and the Madison, Wisconsin lab.

Obviously, the directive set forth by this committee last year calling for retention of the research facility at Laramie to remain, has been grossly ignored. The committee was notified in January that Laramie's facilities would be closed, and I accidently found out that Madison's facilities were next to be moved.

When relocation is completed, there will be only two remaining primary facilities conducting bee research. The two labs will be in Tucson and Baton Rouge, Louisiana. No research will be conducted in the North and North Central regions of the U.S.

I am unconvinced that research conducted in the remaining two labs will result in benefits applicable to the North and North Central regions. Our growing seasons differ. Types of crops grown in the North compared to the South and Southwest differ. Research conducted in the pollination of our forage, fruit, vegetable and grain crops is of critical importance to agriculture in the slighted regions. Pesticide impact and effect on bees in this region differs greatly from that conducted in the Southwest. The Madison lab proved this in studies conducted last year. The Northern labs also conduct research in the wintering of bee colonies through harsh weather so common in our area. I cannot believe near perfect conditions can be recreated in the Tucson lab similar to a northern climate and environment, enabling them to conduct research that will benefit the northern state's bee industry.

Funding needed to conduct research activities at the Madison lab is $376,000.00 this year. This supports four ARS scientists, two Technicians and one secretary. The Department of Agriculture for the State of Wisconsin has personnel working with the ARS scientists and the University of Wisconsin has graduate and post-doctoral students that assist in the research activities. The University of Wisconsin provides facilities and access to University materials to the ARS scientists and has financially supported the work being conducted there.

If the only way to retain this facility is to create a line item in the FY 84 ARS budget, then that is the recommendation I propose to make. I see no long-term gains to be made in bee research that addresses the needs of the Midwest and Great Plains states through relocation and consolidation of these labs to Tucson.

Recommendation: Line item FY 84 ARS budget for the Bee Research Facility located in Madison, Wisconsin.

Funding Level--FY 84 $376,000.00.

This money will be used for ARS scientists, personnel and miscellaneous expenses for ongoing research activities at the ARS Bee Research Facility in Madison, Wisconsin, provided that none of these funds will be used to phase out or relocate this lab or activities conducted at this lab to another ARS facility.

- Soil and Water Conservation Programs.

Budget cuts proposed in soil and water conservation programs for FY 84 are unacceptable. The proposal to combine the Agriculture Conservation Program (ACP), Emergency Conservation Program (ECP), Forestry Incentives Program (FIP) and Water Bank Programs is unacceptable.

I realize the budget constraints the committee is laboring under, yet I fail to understand the rationale behind the deep cuts proposed for conservation programs in FY 84. Does the USDA honestly believe we can meet the objectives preserving our soil and natural resources and continue a productive national agriculture program through the level of funding proposed? In this instance, were long term benefits associated with a sound conservation program sincerely considered?

I urge the committee to review the proposed figures and arrive at higher levels of funding for these programs on an individual basis rather than as a whole as recommended. This will enable us to carry on with a strong conservation program.

JOHNE'S DISEASE

Johne's disease is a chronic infectious disease of ruminants characterized primarily by a progressive diarrhea which does not respond to treatment. It is caused by a bacteria, Mycobacterium paratuberculosis, in the same family as the bacteria causing tuberculosis and leprosy. Several factors make the disease difficult to diagnose and control once it has been introduced into a herd. Among these are the extensive list of differential diagnoses, the lengthy incubation period, the suseptibility of the young animal, and the lack of a rapid reliable diagnostic test which would identify carriers.

Wisconsin has had a management program for Johne's infected herds since 1968 when a cooperative project, Project 125, was initiated with the USDA. In the controlled study, 55.0% of the placebo vaccinates were culture positive for M. para-tuberculosis, while only 8.7% of the animals vaccinated with the whole cell killed bacterin in use today were positive.

When the controlled study was terminated in 1972 and management technics were introduced into infected herds to minimize exposure, the percentage of vaccinates which developed infection dropped even more dramatically. Additional information was collected on 2948 mature animals which were vaccinated with the whole cell vaccine as calves from 1976-1979. Eleven of these (.37%) had been culled either as fecal culture positive or due to apparent clinical illnes.

The significant decrease in the percentage of vaccinates developing Johne's disease from the 1969-1972 study to the survey of vaccinates in 1976-1979 reflects the effect that management can have in facilitating the eradication of the disease from a herd. From 1972 on, herdowners were given the results of semiannual fecal cultures and encouraged to cull any shedders and check progeny immediately, often long before the onset of clinical illness. Calves were removed from dams at birth and raised as far from the adult herd as possible and sanitation to minimize exposure of the calves to any fecal contamination was encouraged.

Based on information collected in these field trials, USDA Biologics Division granted a provisional license to Fromm Laboratories, Grafton, Wisconsin, to produce the vaccine for commercial use. The conditions of the license are that the vaccine may be used only by veterinary practitioners who have a permit from the State Veterinarian of the state in which they practice, only in herds which have had a negative herd TB test, and only in calves 1-35 days of age.

Through February 28, 1983, Wisconsin has 277 herds in which the vaccine has been used and 250 veterinarians who have been issued permits to use the vaccine.

Since the first calf was vaccinated in January of 1969, Wisconsin has vaccinated approximately 20,000 calves. The infection rate in these herds has dropped from an average of 11.7 fecal shedders per 100 animals per year to approximately .8 fecal shedders per 100 animals per year.

In reponse to a request from the Johne's advisory committee that the Department conduct a slaughter survey of cattle in Wisconsin to try to assess the prevalence of infection with Mycobacterium paratuberculosis in native Wisconsin cattle, 1000 tissue samples were collected from cull cows during the weeks of August 9th and August 16th. During the course of the four-month culturing process, nine of the 1000 samples were overgrown by contaminating bacteria and had to be dropped from the study. There were 107 culture positives (10.79%) in the remaining 991 samples.

The slaughter plant from which these were collected has buyers at essentially all the markets in Wisconsin and cattle from a good cross-section of the population. It is not a downer plant, so the cattle sampled were in good flesh; in other words, they were probably not culled for clinical Johne's disease.

The only recent, comparable study done in this country showed an 18% prevalence in cattle slaughtered from several New England states.

Three areas, in particular, deserve additional attention. The most pressing need is for an accurate, rapid diagnostic test which will detect not only those animals currently shedding bacteria, but also those which may be incubating the disease. This would enable herdowners with infected herds to remove those animals with the greatest likelihood of becoming fecal shedders before they begin to expose the young stock. Herds of cattle thought to be free of Johne's disease could be protected from the introduction of carriers. Reasonable standards for Johne's free herds could be established, and prevalence and incidence surveys could be done accurately and inexpensively.

Another factor requiring further delineation is the incidence of the disease in various breeds and types of cattle. Surveys such as the one described in this paper are expensive and, because the samples are taken from cull cattle, extrapolation to the real world is somewhat tenuous. Levels of infection which would accurately reflect the situation in various segments of the industry would allow researchers to write proposals which would address economic impact, permit herdowners to assess the relative risk of buying certain types of cattle, and eliminate the "head in the sand" approach to management and control of Johne's disease.

Whether or not there ever exists an ideal diagnostic test, much more emphasis needs to be placed on management of the infected herd with the goal of minimizing transmission of the disease. Bits and pieces of folklore and fact have indicated that transmission of the disease may occur in utero, that bulls may transmit the organism via the semen and somehow perpetuate the disease in this manner, that the vaccine can increase the number of inapparent shedders, that subclinically infected cattle have a higher level of mastitis and infertility than their uninfected herdmates, and many other epidemiological tidbits which influence management recommendations and practices. These factors need to be evaluated so that the goal of minimizing calfhood exposure can be accomplished as efficiently and as completely as possible.

JOHNE'S DISEASE—A GROWING THREAT TO DAIRYMEN

THERE is a growing concern among dairymen, especially registered breeders, that the dreaded Johne's disease is becoming more widespread. Many dairymen have been living with the disease unknowingly, since there is no quick, reliable test available. Some found out they have it and have been on a testing and vaccination program. Even then, however, there is no guarantee the disease will be eliminated from the herd.

To bring our readers an update on what is known today, we have asked three people who have had considerable experience with Johne's to answer questions concerning its symptoms, the tests, how the disease is spread and current status of the vaccine.

Dr. Sarah Hurley is a staff veterinarian with the Wisconsin Department of Agriculture, Trade and Consumer Protection, where she has charge of the Johne's disease program. Some 200 Wisconsin herds are on a testing and vaccination plan.

Dr. Richard S. Merkal is on the staff at the National Animal Disease Center, Ames, Iowa, and has been conducting research on Johne's disease for several years.

Dr. Glen F. Hoffsis is chief of Food Animal Medicine and Surgery at Ohio State University and is a member of the Tuberculosis and Johne's Disease committee of the United States Animal Health Association.

What do you estimate the incidence of Johne's disease in your state?

Hurley: I have no idea. It appears to be more common in those areas where herd owners and veterinary practitioners are attuned to it, but whether they are more aware of it because there is more, or they find more because they are looking for it, is difficult to say.

Merkal: We ran gel diffusion precipitin tests on 12,000 sera from randomly selected cattle from across the U.S. That test only detects heavily infected cattle, but these cattle are not necessarily clinically ill. We found 13 reactors among the 12,000 samples. A cultural assay in California of tissues from normal cattle that were being culled for slaughter yielded 0.45 percent infected.

Hoffsis: Until recently the diagnostic techniques have not been adequate to accurately diagnose the disease. The disease has had a lower priority for control than brucellosis and tuberculosis. Major funding for disease control such as epidemiological information and research has been channeled into the tuberculosis and brucellosis eradication programs.

Many aspects about Johne's disease make it very difficult to manage and control. It is not contracted by people and, therefore, does not represent a serious threat to human health or to the food chain.

Because of these facts, a control program for Johne's disease has been given a low priority by government regulatory officials. Although herd owners and veterinarians in some parts of the country have reported alarming numbers of cases of Johne's disease, the true incidence is not known.

My personal impression is that the incidence of Johne's disease is gradually increasing, especially in the dairy population in the Great Lakes and west coast regions.

What are the most recognizable symptoms of Johne's?

Hurley: The most recognizable symptom is chronic diarrhea which results in progressive wasting and eventual death. The diarrhea may be intermittent at first but does not respond to any known treatment. The hair coat color may fade during the course of the illness, but appetite and temperature tend to remain normal. There really are no other symptoms that definitely are correlated with Johne's disease.

Merkal: The most recognizable symptoms: emaciation, intermittent diarrhea and alopecia (hair loss). Intermittent low-grade fevers and inappetence also are common. Periodic serologic and allergic manifestations of infection also can be measured. When the level of infection is high enough, the organisms usually can be detected by fecal culture.

Hoffsis: The most obvious sign of Johne's is diarrhea of several days' or weeks' duration in an animal that does not seem physically sick. In fact, most infected cattle develop a ravenous appetite and thirst. Diarrhea is caused by invasion of the Johne's organisms in the gut wall. It begins at the junction of the large and small intestine and gradually (over many months) spreads both ways. The affected areas of gut are less efficient at absorbing nutrients and diarrhea results. The animal must compensate for the poorer efficiency of absorption by eating and drinking more.

Another prominent sign is weight loss. When sufficient amounts of gut are infected, animals no longer can compensate for the decreased absorption no matter how much they eat. At this point, they utilize body tissues for energy and progressive weight loss occurs.

Because of poor protein absorption and loss of serum protein into the gut, a low serum protein occurs. This sometimes causes the formation of edema in the area just under the jaw or in the brisket. Bulls may get an edematous sheath. Cattle also may get anemia in later stages.

Once signs of diarrhea appear, they usually persist until the animal dies. There may be brief periods of remission but diarrhea always reappears later. Cattle do not recover from this disease spontaneously.

In an infected herd, there may be some infected cattle that don't progress to signs of diarrhea. These cattle shed the organisms in their manure but survive for their entire life in a compensated state. Undoubtedly, these cattle are less efficient performers and represent a big loss to the herd owner.

How many herds are being tested for Johne's in your state? What tests are being used? How long does it take to get results?

Hurley: The State of Wisconsin is testing for Johne's disease in approximately 200 herds. There are at least 75 more herd owners who are interested, but they either have not yet been scheduled for a herd culture or want to see what happens after their index case. We use semiannual or annual whole herd fecal culturing as a measure of the success of the program in each herd. It takes three to four months to obtain results.

Merkal: No records have been collected of the number of animals or herds being tested annually. The complement fixation test is most frequently required for international shipment. Gel diffusion precipitin, counter-current immunoelectrophoresis and hemagglutination serologic tests sometimes also are conducted. Fecal culture is the most reliable currently available test for paratuberculosis in cattle.

A variety of serologic and allergic tests have been tried for diagnostic purposes. Although any of them may have some usefulness in selecting against animals for purchase, they are too frequently positive in the absence of infection to be useful for culling. The only test useful in cattle for culling is fecal culture.

Cultural results usually are available in three months. Although this may seem like a long time, it is much faster than waiting for clinical illness to become apparent. Moreover, if animals are sent to slaughter immediately after they are detected by fecal culture, clinical illness rarely will develop and the losses due to clinical illness can be prevented by slaughtering the animals while they still are healthy.

Hoffsis: In Ohio I would estimate that about 10 to 12 herds are tested each year. Many samples from suspected individual cattle also are tested. Fecal culture is the only test used in Ohio currently for testing an entire herd. Four months usually are required to obtain the results. One of the problems with this test is lack of capability of most labs to process large numbers of samples. In Ohio, the diagnostic lab can accept no more than 25 fecal samples for culture per week.

How do you evaluate the various tests? When can one consider his herd free from Johne's?

Hurley: The culture method of testing is the only one which will indicate whether or not the animal(s) in question actually are infected. Lymph nodes, intestine or fecal material are the materials commonly cultured. There are no other tests used for program work in Wisconsin although we will run complement fixation, acid fast staining, and provide Johnin for IV or ID testing upon request.

Animals which actually are infected may be negative on any of the tests currently available. The incubation period may be from two to six years and during that time we have no method of detecting infected incubating animals. When the infected animal finally begins to shed the bacteria, whether it is clinically ill (scouring) or not this will be picked up on culture, but the shedding may be intermittent and bacteria only will be detected in the feces at times when shedding is occurring.

The Wisconsin program considers a herd to be Johne's free when it has undergone three consecutive negative annual herd fecal cultures. This time period is calculated to be cost-effective. Biologically it would take about six years of negative cultures to be relatively certain that the herd was clean.

Merkal: With any test currently available, the animal may be infected but still give a negative test. However, fecal culture is the most reliable test because it is unlikely to be positive if the animal is not infected. We recommend three semiannual fecal culture tests of the entire adult herd (with a total of 200 samples) before the herd is considered paratuberculosis free.

Hoffsis: A relatively large number of tests have been developed. Unfortunately, most of these tests have serious limitations. Most of the serologic (blood) tests have too many false positive and false negative results. The intradermal skin test, which is very similar to the tuberculin test, also has a large number of false positive and false negative results.

Fecal culture generally is regarded as the standard by which all other tests are compared. If the animal is positive on fecal culture, the animal definitely is shedding organisms. If the test is negative, the animal could be infected, though not shedding organisms in sufficient numbers to show up positive on the test. It is the most accurate test and serves as the basis for most control programs.

The most serious limitation to this test is the fact that four months are required for results to be obtained. It also is a relatively expensive test. Because of time and space requirements, there is a limit to the volume of samples that can be processed by most of the diagnostic laboratories.

The intravenous Johnin test also is a very accurate test but requires that the animals' temperatures be taken every hour for eight hours. Because of this fact, it is difficult to perform this test on many animals at one time.

A rectal mucosal biopsy with microscopic identification of Johne's organisms is a good screening test on suspected clinical cases. If this test is positive, it means the animal has Johne's disease. If the test is negative, no conclusion can be drawn.

It would be possible for the animal in question to be infected with the organisms but the area from which the sample was taken has not been invaded sufficiently to have organisms. The advantage of this test as a screening test is that the results can be obtained very quickly and a decision can be made regarding the disposition of the cow.

In addition to the tests described, newer serologic tests are in the developmental stages. Some of these look very promising and hopefully will become useable in the near future.

How many herds are on a vaccination program in your state? Please explain the program.

Hurley: At this precise moment, we are vaccinating calves in 123 herds. This has increased from 40 herds since November of 1979, when the state of Wisconsin began receiving vaccine produced by Fromm Laboratories for use in the program. The rate at which the program is expanding has leveled off to an increase of approximately three herds per month.

The program was initiated as Project 125, a joint USDA/WDA research project in October of 1968, with eight herds, and has continued since that time.

The vaccination program is administered through the State Veterinarian's office, Animal Health Division, Wisconsin Department of Agriculture, Trade and Consumer Protection. The vaccine may be administered only by state or federal veterinarians. Herd owners are eligible for the program if they have had a positive culture diagnosis of Johne's disease, a negative herd TB test and sign a memorandum of agreement in which the herd owner and the state each agree to accept certain responsibilities.

Replacement calves are vaccinated between 5 and 35 days of age with a killed whole cell vaccine administered subcutaneously, approximately one-half inch above the point of the dewlap in the brisket.

Merkal: The Wisconsin plan is the oldest field test of the vaccine. More recent programs have been initiated in Pennsylvania, Minnesota and Iowa. Each state administers its own program, but it must be approved by USDA. In most cases, state or federal veterinarians administer the vaccine. The vaccine is administered directly beneath the skin of the brisket.

Hoffsis: In Ohio, only one herd is on a vaccination program. Nationwide, only a few herds are being vaccinated except in Wisconsin where the experimental vaccine has been employed in selected herds for a number of years. Prior to experimental use of vaccine in Wisconsin, it has been used at the National Animal Disease Laboratory at Ames, Iowa, and in several European countries dating back to the early 50's.

There is no specific Johne's vaccination program except for a few general guidelines which stem from NADC recommendations. Because the vaccine still is experimental, it only can be obtained from the manufacturer by special request to the deputy administrator of the Animal and Plant Health Inspection Service of USDA by the state veterinarian.

The nature of the program and the restraints to be placed on the usage of the vaccine then are directed by each specific state veterinarian. In some states, the vaccine only is to be administered by state veterinarians.

The vaccine is administered subcutaneously to calves less than 35 days of age. Injection can be made at any subcutaneous site, but, due to the large swellings that sometimes occur, it usually is given in the brisket area or other inconspicuous location. Vaccinated calves then are identified with a special ear tattoo.

What reactions are there from the vaccination?

Hurley: The vaccine may cause the animal to develop a granuloma at the injection site. These granulomas can become quite large (grapefruit size) and develop draining tracts. This is more common when the vaccine is administered at the point of the dewlap or when the injection site is subjected to repeated trauma.

Vaccination with the Johne's bacterin also confuses the interpretation of the caudal fold test for tuberculosis in the herd in which the true tuberculosis status is not known.

Merkal: A vaccination nodule up to five inches in diameter may develop at the site of inoculation. Most animals will develop antibodies and delayed hypersensitivity that cause them to react to all serologic and allergic tests, including the tuberculin test. This is one of the most negative aspects of vaccination.

After vaccination, there is no method other than culture that can be used in diagnosis of infected animals. Although this is not a serious drawback in terms of culling, it can be very serious if the vaccinated animals are to be sold to a buyer who wishes to select animals partially on the basis of negative serologic or other allergic criteria.

Hoffsis: The vaccine produces a large, unsightly swelling in the majority of animals vaccinated. The swelling apparently persists for a long period of time and may detract from the appearance of some of these cattle.

Many vaccinates will react positively to tuberculosis tests. Because of this fact, a herd must have a negative tuberculosis status prior to the institution of Johne's vaccination. Otherwise, it might be more difficult to determine whether tuberculosis exists or not.

In nearly all cases, cows vaccinated against Johne's disease that react positively to the intradermal tuberculin test will be negative for tuberculosis by the comparative cervical TB test. If a specific animal was not clearly identified as a Johne's vaccinate, regulatory problems could arise from the positive TB reactions.

Cattle vaccinated for Johne's also develop a sensitivity to many of the Johne's tests, including the blood tests and the intradermal test. This fact could cause a difficulty in exporting cattle to foreign countries and possibly movement of cattle into some states and bull studs.

Why isn't the vaccine available commercially?

Hurley: The vaccine is not available commercially because the USDA, Animal and Plant Health Inspection Service, Veterinary Services, has permitted Fromm to produce the vaccine for use only in Wisconsin by state and federal veterinarians. Whether it eventually will be available generally is hard to say.

Merkal: The vaccine is not available commercially because it has limited protective effect in terms o. preventing infection and reducing clinical illness. The vaccine probably will be available commercially when adequate safeguards have been built into its use to protect both the dairyman who uses the vaccine and those who purchase vaccinated animals.

Hoffsis: We are fortunate in the United States that new biological products must be shown to be safe and efficacious before they are licensed for interstate movement. This protects the livestock industry from the possibility of using products which not only could be harmful but also might not accomplish what they are intended to accomplish. A considerable amount of effort, expense and time is required to prove Johne's vaccine to be safe and efficacious.

Preliminary results in Wisconsin look very promising for the vaccine. But until such time that enough data are gathered to allow licensure, the vaccine will not be available commercially and only will be produced on an experimental basis.

What is the likelihood of organisms from vaccination being shed and causing the disease in other animals?

Hurley: There is no possibility that organisms from vaccination will be shed and cause the disease in other animals. The vaccine is made up of killed bacteria and the product is cultured periodically to check the viability of the organisms.

Vaccination does not provide absolute protection against infection so it is possible for vaccinated animals to become infected due to environmental exposure and to shed bacteria thus spreading the infection. But the infection cannot be the result of vaccination with a killed bacterin.

Merkal: Since the vaccine contains only heat killed organisms, there is no possibility of spreading the organisms from the vaccine. However, vaccinated animals are very likely to disseminate paratuberculosis organisms because the vaccine does not prevent infection when it is present in the herd and the vaccine is likely to be used only in infected herds. Hence, vaccinated animals may very well be infected and cause the disease in other animals.

Hoffsis: There is no chance that the organisms that result from vaccination ever can be shed by the vaccinated animal. The currently used Johne's vaccine is a killed product, meaning that only inactivated organisms are present in the vaccine. I would hasten to point out, however, that vaccination does not eliminate the possibility of the vaccinated animal becoming infected with Johne's disease.

Preliminary data would indicate that the major effect of vaccination is the reduction of clinical signs of Johne's disease. However, some of those vaccinated cattle that never manifest clinical signs may have some degree of infection of their tissues and, therefore, shed organisms in their feces from time to time.

How effective the vaccine is in reducing actual tissue infection has yet to be thoroughly proven. Anyone using the vaccine should not be lulled into thinking that the protection from vaccination is complete. There still is the possibility that a vaccinated calf growing up in a very contaminated environment may develop some degree of infection, even though it is less likely to show clinical signs of disease.

Can the disease be spread from farm to farm?

Hurley: It is theoretically possible for visitors to spread Johne's disease from one farm to another through the transfer of contaminated manure. Infection occurs most commonly through ingestion of contaminated feces and usually is introduced into a clean herd by the purchase of an infected animal.

Mycobacterium paratuberculosis can survive in fecal material or contaminated soil for at least a year.

Merkal: The organism is shed in the feces, so it is carried easily on contaminated footwear from one place to another. Contaminated footwear should be cleansed in a bootbath containing an effective disinfectant such as orthophenylphenate.

Hoffsis: The disease could, in theory, be spread from one farm to another by visitors. However, the probability is low. Calves become infected at a very young age, and serious infections develop as a result of ingestion of a large number of organisms over a long period.

The level of contamination that could result from contaminated manure on someone's shoes who walks through a neighbor's barn is miniscule as compared to a single infected cow in a herd. Affected cows shed billions of organisms in every pound of manure.

Cattle that have contact with one another at sales and shows or that use the same stock trailers certainly have potential for spread. But this is not a major concern, especially when compared to the risk of allowing an infected cow to enter a clean herd.

The organism has been shown to survive for years in the environment if conditions are favorable. It is important to know, however, that the number of organisms in a contaminated environment decreases with each passing month.

The decline in contamination can be accelerated by thoroughly cleaning the premises and possibly using a disinfectant. It probably is not necessary to remove every single Johne's organism from the environment before the farm is repopulated with animals since it takes a fairly heavy exposure to cause infection.

Vaccine coming

A commercial firm soon will be applying for a USDA license to produce and market a microbacterium paratuberculosis bacterin. If the bacterin is made available, distribution in each state shall be limited to authorized recipients designated by proper state and federal officials and the following requirements met:

1. Distribution and administration in each state shall be limited to veterinarians designated by proper state and federal officials.

2. Only replacement heifer and bull calves between 1 and 35 days of age shall be vaccinated in herds operating under a cooperative agreement with the state.

3. The bacterin shall be used only in known infected microbacterium paratuberculosis infected herds.

If licensed, it is unlikely the product would be available before September 1981.

Are there restrictions on the movement of cattle from Johne's infected herds?

Hurley: In Wisconsin, Johne's infected herds are not placed under quarantine. The primary restriction to movement is the civil liability which is incurred by an individual who knowingly sells or transfers animals diseased or exposed to contagious disease to someone who is not aware of the situation.

Merkal: Restrictions on the movement of animals from paratuberculous herds to other herds are controlled at the state level.

Hoffsis: Cattle known to be infected with Johne's disease or that originate from a known

Johne's infected herd cannot legally be shipped interstate. This is not to say that infected cattle never move interstate. Cattle from Johne's infected herds undoubtedly are shipped frequently interstate because the diagnosis never has been established in those herds.

Since the incubation period is close to two years, infection with Johne's disease is a long proposition. A cow with Johne's disease may have been removed from the herd three or four years previously and been long forgotten. Health certificates might be issued on this farm when, in fact, the disease still is present.

What precautions should be taken to prevent Johne's disease from entering a herd or spreading once it is diagnosed?

Hurley: We have prepared a Johne's disease control fact sheet. This is given to all herd owners enrolled in the program and to anyone else who requests it. It outlines precautions and management techniques.

Merkal: Replacement animals should be purchased only from paratuberculosis-free herds. Such herds can best be identified by culture survey. Serologic or allergic tests of the donor herd may serve as useful adjuncts to demonstrate freedom from paratuberculosis. Herd history is useful only in closed herds in which the historian is sure to be unbiased.

After the disease has been diagnosed in a dairy herd:

1. All calves should be removed from their dams at birth and be raised separately on milk replacer or pasteurized milk. The principal mode of transmission involves ingestion of the organisms during nursing. All exposure to fecal contamination from adult animals should be prevented.

2. Fecal specimens from all adults should be examined by culturing at least semiannually. All animals found to be shedding the organisms should be sent to slaughter. There is very little possibility that an animal shedding enough organisms to be detected culturally will recover; in the meantime, it is a very real hazard to other animals in the herd.

Hoffsis: The best precaution that can be taken is to avoid purchasing an infected animal. Currently the best way to accomplish this is to obtain a thorough history regarding the diagnosis or clinical signs of Johne's disease within the herd of origin.

Once Johne's disease is diagnosed, the herd owner should work through his local and state veterinarian to work out a plan for control. He certainly should not panic. The first thing to consider is the origin of the affected cow. If he purchased the cow, he is less likely to have a serious problem on his farm because Johne's disease is contracted by calves at a young age.

If he purchased the cow, someone else has the Johne's disease herd problem. If he raised the cow, the disease is likely to be present in his herd because the affected cow contracted the disease several years ago when it was a calf. The disease very likely has been on his farm since that time.

He should examine his records and remember back through the previous several years of other cows that had clinical signs of Johne's disease but may never have been diagnosed. If there are a large number of cows that have had chronic diarrhea, the problem is likely to be more serious. If there have been an increasing number of cows with chronic diarrhea in recent years, the problem likely is to be building and gaining in severity.

A few facts should be understood by the owner in working with his veterinarian:

1. The disease is spread by ingestion of large numbers of organisms. This means the major means of spread is feed and water that is contaminated with manure from infected cattle.

2. Calves are infected at a very early age. Birth to weaning age is the most susceptible time period. After animals are 1 year of age, or older, they are very unlikely to become infected to the degree that clinical signs result.

3. Even though calves become infected at a very young age, they do not show signs of Johne's disease until approximately 2 years of age. In other words, the incubation period is about two years.

The basic ingredients of a control program are as follows:

1. Immediate isolation of all cows that develop diarrhea. They should be kept completely separated from all other cattle. Don't isolate these cows from the remainder of the cow herd by putting them in the calf pen. This has been done by well-meaning dairymen who did not understand the disease. Ask your veterinarian to examine all cows with diarrhea and test them for Johne's disease.

2. All cows with a positive diagnosis of Johne's disease should be sold for slaughter. A fecal culture of all adult cows in the herd then should be conducted. Any cow that is positive on the culture test then should be removed for slaughter. There is no excuse for keeping a known infected cow.

3. Employ good management practices which will reduce the number of these organisms in the environment and reduce the exposure of the susceptible age group animals. This includes:

a. Removing all calves from their dams immediately after birth. They should be fed colostrum by nipple bottle, thus avoiding any possibility of fecal ingestion. These calves should be raised completely separate from any adult animals until over 1 year. Fence-line contact with adult cows is not acceptable.

b. Proper manure disposal. Manure from the adult cow herd should be spread on fields intended for cultivation, rather than on pastures. Young stock may, from time to time, have access to these pastures and thereby have a potential for becoming infected.

c. Avoid fecal contamination of feed and water by keeping water sources elevated, by not using ponds and creeks, by not feeding cattle from the ground, by not pasturing calves and by avoiding the use of common waterers for adult cows and calves.

If a dairyman thinks he has Johne's, what should he do?

Hurley: A dairyman who thinks that he has Johne's disease should contact his private veterinarian. Infection must be verified by laboratory confirmation of infection with M. paratuberculosis and the submission of samples must be coordinated through the practitioner. The practitioner also can provide expertise in making a differential diagnosis and contacting state officials.

Merkal: The presence of the disease should be verified by fecal culture or culture from tissue specimens at slaughter of suspect animals. If paratuberculosis is present, an eradication program should be initiated including:

1. separation of newborn calves from dams at birth
2. fecal culture of all adults, followed by slaughter of those shedding organisms
3. prevention of exposure of calves by implements, footwear, living quarters or pasture.

Hoffsis: If an owner thinks he has Johne's disease in his herd, he should contact his local veterinarian immediately and ask him to test for the disease.

STATEMENT OF HON. DANIEL K. INOUYE, A U.S. SENATOR FROM HAWAII

Thank you, Mr. Chairman, for providing me with this opportunity to comment on the United States Department of Agriculture's proposed budget for fiscal year 1984.

I continue to support a strong and viable agricultural industry in the United States. To this end, I join with my colleagues in working with you to preserve the USDA's research, conservation, and nutrition services. However, I do have three basic questions about the President's budget requests for the USDA in FY 1984. The first concerns the level of research activities undertaken by the Department. Although the Administration has proposed level-funding for tropical and subtropical research, other programs vital to the future of diversified agriculture are being dropped, namely, alternate sugarland use research under the Cooperative State Research Service ($ 150,000), aquaculture research under CSRS ($ 518,000), and sugarcane research under the Agricultural Research Service. I support funding for these programs at FY 1983 levels and oppose reprogramming ARS funds for use in animal instead of plant research.

Although fruitfly research is important, we should not undertake it at the expense of plant research. According to one plan being circulated at ARS, the Hawaiian Sugar Planters Association's experimental research station would lose a USDA scientist working on basic plant physiology. Given the importance of Hawaii's sugar production to both the state and the nation as a whole, I believe that it would be shortsighted for the USDA to abandon sugarcane research for budgetary reasons: the longterm costs will far outweigh any shortterm savings.

A second source of concern is the Administration's proposal to reduce funding for the Agricultural Cooperative Service and delete the provision earmarking $139,000 for a new field office in Hawaii. After careful consideration last year, Congress agreed that the farmers of the State of Hawaii need a local ACS office and directed the USDA to open one in FY 1983. The Administration's proposal to cut appropriations for the ACS from $4,639,000 to $3,677,000 would seriously jeopardize the operations of both the new field office and the ACS as a whole. I therefore urge the Committee to provide at least level-funding for the ACS in FY 1984 and retain the language appropriating $139,000 for the exclusive use of establishing and running a Hawaiian field office.

My third concern is the budget proposal for the Dairy Indemnity Program. Dairy farmers on the Island of Oahu are just beginning to recover from the disaster of last years's heptachlor contamination. As the enclosed letter from Jack Suwa, Chairman of Hawaii's Board of Agriculture indicates, milk producers and processors in Hawaii lost a total of $ 8,415,877.10 between March and December 1982. Despite these massive losses and the support exhibited by Congress for the Dairy Indemnity Program since its inception in 1964, the Administration is proposing to zero-line this program in FY 1984. The problem is that Congress appropriated only $7,000,000 for FY 1983, which is not enough to cover the full extent of the losses incurred by Hawaiian dairy farmers. I therefore trust that the Committee will recommend an appropriation of $1,450,000 for FY 1984 to cover not only Hawaiian dairy farmers but also individuals in other states who might suffer similar losses. I enclose for your consideration a table of Dairy Indemnity Program payments between 1965 and 1982, including a breakdown of outlays by state for FY 1982, and ask that it be made part of the record.

Thank you, Mr. Chairman, for your time and consideration in this matter.

LOSSES DUE TO HEPTACHLOR CONTAMINATION

Meadow Gold Dairies - For milk products only.			
March 1982	$ 327,828.14		
April	456,411.51		
May	116,974.61		
June	12,249.50		
July-Jan. 1983	-0-		
		$ 913,463.76	
Foremost Dairies - For milk products only.			
March 1982	$ 184,457.74		
April	6,617.20		
May-Jan. 1983	-0-		
		191,074.94	
			$1,104,538.70
Producers			
March 1982	$ 782,974.85		
April	1,700,187.11		
May	1,252,440.86		
June	766,688.08		
July	636,237.16		
August	459,032.18		
September	413,899.26		
October	573,476.49		
November	413,445.35		
December	312,957.06		
		7,311,338.40	
			7,311,338.40
			$8,415,877.10

DAIRY INDEMNITY PROGRAM
Obligations and Outlays by State
Fiscal Year 1982

State	Obligations	Outlays
Florida	$ 1,042	$ 2,415
Hawaii	159,286	- -
Illinois	1,604	1,604
Indiana	4,963	4,963
Nebraska	6,105	6,105
South Dakota	3,000	- -
Total	$176,000	$15,087

Dairy Indemnity Program
Payments and Number of Payees - FY 1965 to 1982

Fiscal Year	Payments: Dairy Farmers	Payments: Manuf. of Dairy Prod.	Number of Payees	Total Payments
1965	$ 349,933	--	135	$ 349,933
1966	214,459	--	60	214,459
1967	166,466	--	110	166,466
1968	264,128	--	35	264,128
1969	136,571	--	20	136,571
1970	125,520	--	35	125,520
1971	164,474	--	23	164,474
1972	46,082	$ 15,500	4	61,582
1973	36,553	94,666	6	131,219
1974	144,477	31,261	21	175,738
1975	193,389	--	26	193,389
1976 & TQ	159,289	--	19	159,289
1977	40,284	--	8	40,284
1978	66,266	9,210	12	75,476
1979	64,267	--	13	64,267
1980	91,575	--	9	91,575
1981	42,231	--	15	42,231
1982	15,087	--	5	15,087
Total	$2,321,051	$150,637	556	$2,471,688

LETTER FROM HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM LOUISIANA

April 5, 1983

The Honorable Thad Cochran
Chairman, Subcommittee on Agriculture,
Rural Development, and Related Agencies
Senate Appropriations Committee
Washington, D.C. 20510

Dear Mr. Chairman:

When the Agriculture Appropriations Subcommittee considers the FY 1984 Agriculture Appropriations bill, I sincerely hope that you will be able to act favorably on two high priority items.

First, I remain keenly interested in the research on double row spacing and other sugar research currently underway at the USDA Sugar Research Station in Houma, Louisiana. I believe the President's budget request is adequate for the most pressing needs at Houma and I urge the Subcommittee to approve the Administration's recommended funding level for this program.

Second, last year the Subcommittee provided sufficient funds for three demonstration commodity supplemental feeding programs for low income, "at nutritional risk" senior citizens, one of which is in New Orleans. The New Orleans program already has a waiting list of over 5000 elderly eligible seniors and has generated tremendous volunteer support efforts. To test this pilot program fully, I believe it is critical that all three areas receive funding again in FY 1984 and I hope very much that you will be able to allocate each program an additional $450,000 in FY 1984.

With kindest regards, I am

Sincerely,

J. Bennett Johnston
United States Senator

Letter From Hon. Dennis DeConcini, a U.S. Senator From Arizona

April 14, 1983

The Honorable Thad Cochran
Chairman
Subcommittee on Agriculture,
Rural Development, and
Related Agencies
United States Senate
SD-140
Washington, D.C. 20510

Dear Thad:

I appreciate your invitation to express my views on the Administration's FY 84 budget request prior to the hearings by the Appropriations Subcommittee on Agriculture, Rural Development, and Related Agencies next week.

It has come to my attention that the Administration has deleted from the FY 84 budget U.S.D.A. Extension Service IPM Funds (3/D) in the amount of $7.5 million. While Arizona's share of these funds is relatively small ($84,000), these monies provide critical technical pest control support which our growers desperately need. Continued funding for pest control is urgently needed in Arizona due to the infestation of our cotton crop by the boll weevil. Elimination of this funding would result in increased production costs and would exacerbate the economic crisis in the Arizona agricultural sector. Anything you can do to restore funding for this vital program to the FY 83 level would be sincerely appreciated.

Thank you for your kind consideration of this request.

Sincerely,

Dennis

DENNIS DeCONCINI
United States Senator

Statement of Hon. Larry Pressler, a U.S. Senator From South Dakota

I would first like to commend the Subcommittee for holding these hearings and for giving me an opportunity to express my views.

There are a number of areas and programs on which I would like to comment and make recommendations. My home state of South Dakota--the most agricultural state in the country--has a great interest in the budget for the Department of Agriculture.

I am pleased that the 1984 budget request maintains the Agricultural Research and Education Program. Maintenance of an effective research and extension program is essential to keep farmers informed of the most modern farming techniques and to educate young farmers. The use of modern farm methods is vital if American farmers are to continue to produce record crops. However, with limited availability of research funds, it is important that USDA and the farm community work closely to direct funds to finance research in areas of highest need.

Adequate funding for agricultural export promotion and commodity programs is crucial. Last year farm exports declined for the first time in more than a decade, and farm income fell for the third consecutive year. The Administration has proposed an increase in funding for the Foreign Agriculture Service and the PL-480 program, but unfortunately proposes a reduction in the Export Credit Program. Due to the importance of regaining and expanding our export markets, it is essential that our export promotion programs be fully funded. I urge the Committee to at least provide the funding request for FAS and the PL-480 program, and increase funding for the Export Credit Program to at least the 1983 level.

With farm income declining, it is necessary to maintain funding for the commodity programs. The PIK program should help to improve farm prices, but it cannot be counted on to solve all farm problems.

Another area where maintaining adequate funding is important is the Soil Conservation Service. Topsoil is our nation's most valuable resource, and we must protect it. The Administration has requested a major spending reduction in this area and no funding for certain programs. I urge the Committee to provide full funding for soil and water conservation, including funding for the Resource, Conservation and Development Program.

Farmers and farm cooperatives also need adequate credit. The recent shortfall of FmHA farm operating loan funds illustrates the need to increase funding as the Administration has requested. The other credit programs must also be adequately financed and reductions in programs such as the rural electric and telephone loan programs must be rejected.

Other programs which are of particular interest to South Dakotans include:

- --the Brucellosis Eradication Program. The proposed reduction could be acceptable if the livestock industry has input on how the cut will be administered;
- --Child Nutrition Programs. A nutritious meal is important to young children. The cost of the program can be reduced by using surplus commodities, but we must maintain an effective program.

These are some of the areas in the Department of Agriculture's budget which are of concern to me and other South Dakotans. I would appreciate your consideration of my comments when your Committee marks up the FY 1984 Agriculture Appropriations bill. Thank you again for the opportunity to present my views.

Letter From Hon. David Pryor, a U.S. Senator From Arkansas

April 19, 1983

The Honorable Thad Cochran
United States Senate
Senate Russell 326
Washington, D.C. 20510

Dear Thad:

I am writing in regard to the funding for the program on Mosquito Research-Riceland Agroecosystem and the Consortium for Integrated Pest Management (CIPM) to the USDA-CSRS Special Grants budget (Public Law 89106). These grants are crucial to the cotton, soybean, and Riceland Mosquito research programs in Arkansas and the region.

Pest management strategies have resulted in significant increases in productivity and sizable reductions in costs. If current levels of funding for this research is discontinued full potential benifits from previous investment would be impaired. Investment of additional funds will be proportionately more productive because various facets of research can be completed and structured into a viable management system.

In the riceland mosquito management program (RMMP) several aspects of human health and welfare are affected. Research is providing alternatives to chemical insecticides for mosquito management. Pilot programs are investigating the potential for the implementation of these alternatives. Additional research effort and time is required if we are to verify the potential of these alternatives. Without these grants the time required to implement an effective strategy would be at least doubled. These improved strategies would significantly reduce the potential for diseases vectored by these mosquitoes (i.e. equine encephalitis, anaplasmosis, heartworm, etc.).

I respectively submit these arguments to you and for the record so that the impact of these programs can be carefully analyzed.

Sincerely,

David Pryor

Letter From Hon. George J. Mitchell, a U.S. Senator From Maine

The Honorable Thad Cochran
Chairman
Subcommittee on Agriculture, Rural
Development, and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

April 6, 1983

Dear Thad:

I am writing in response to your invitation to submit my views on the Administration's Fiscal Year 1984 USDA budget request for the Appropriations Subcommittee's hearing scheduled for April 20. There are two issues of importance to the State of Maine which I would like to bring to your attention.

First, I have been informed that the Agricultural Cooperative Service plans to close by July, 1983 the Maine ACS field office. The current FY 1983 budget for ACS is $4.6 million. The Administration has proposed a $770,000 rescission. To meet the personnel cuts made necessary by the rescission, ACS plans to shut down the Maine office and possibly other agricultural cooperative field offices across the country.

I strongly oppose the rescission and the proposed closure of the Maine ACS field office. The Maine office has been unusually productive and effective in a wide range of agricultural projects in the state. The office has also sparked a growing interest in cooperatives in Maine even as the farming community has faced increasingly distressed economic times. As Maine Department of Agriculture Commissioner Stewart N. Smith stated in a letter to me, "the presence of this office and its cooperative specialist, Gerald Ely, has been invaluable to Maine's farm cooperative movement specifically, and to the strengthening of Maine agriculture generally."

I would urge you to consider including language in the FY'84 Agriculture Appropriations bill to prohibit the proposed closing of the Maine ACS field office.

Second, it is my understanding that the Agriculture Department is attempting to divert a significant portion of the $83,429,000 appropriated in the FY 1983 budget for the brucellosis program. In the FY 1983 Agricultural Appropriations bill, the Congress mandated the use of the full $83 million for the eradication of brucellosis. However, the department has now requested permission to reallocate $20 million of those funds for other purposes within the APHIS budget.

Federal assistance in the fight against brucellosis is critically important for dairy and livestock farmers in Maine. As Commissioner Smith has stated, Maine is "a brucellosis-free state at the moment and has earned that distinction by utilizing the federal program in conjunction with our own. It would be difficult for us to maintain a brucellosis-free status without the support of the federal program."

I would request that you and the other members of the Subcommittee reject the Administration's proposal to divert brucellosis funds for other purposes in the APHIS budget.

Enclosed for your review are copies of two letters from Commissioner Smith which detail the importance to the State of Maine of both the Agricultural Cooperative field office and full funding for the brucellosis program.

I appreciate your attention to these issues.

Sincerely,

George J. Mitchell
United States Senator

Enclosures (2)

Letters From Stewart N. Smith, Commissioner, Maine Department of Agriculture

March 17, 1983

Senator George J. Mitchell
145 Russell Senate Office Bldg.
Washington, D.C. 20510

Dear Senator ~~Mitchell~~ George

As you are aware Maine is one of only five States in the nation in which there is located a USDA Agricultural Cooperative Service Field Office. The presence of this office and its cooperatives specialist, Gerald Ely, have been invaluable to Maine's farm cooperative movement specifically, and to the strengthening of Maine agriculture generally.

I am fearful that the gains we have made -- especially among small and unorganized farmers -- may be lost if the Reagan Administration's USDA proposed budget actions are adopted. The proposed 17 percent recision in the budget of the ACS for Fiscal 1983 puts the Maine Field Office in serious jeopardy. The current Fiscal 1983 budget for all the ACS activities is $4,600,000. The Administration has proposed a $770,000 recision. In addition I understand a field office will be opened in Hawaii directed by language in the 1983 appropriations act. If Maine is closed and Hawaii opened, that will leave three offices in the Southeast (North Carolina, Kentucky, and Arkansas) and two in the far west (California and Hawaii). The record to date indicates the Maine office has been more productive to its constituents than some of the others.

The unique opportunities for agricultural cooperatives in Maine which originally brought the office to the State in the spring of 1980, still exist and amply justify the continuation of this program. In the three years since the office was established we have witnessed a growing interest in cooperatives while at the same time the State and nation faced serious problems in the farm economy. Specifically, we are looking to this office to:

1. Help bring about structured changes in Maine's potato industry. The office has been working closely with the St. John Valley Potato Growers and the Mid-Valley Sales Cooperative in Northern Aroostook. These organizations are providing innovative leadership in quality control and marketing so vital to the future of the State's potato industry. Ultimately each of these groups can expect to generate $2 million in sales annually.

   Ely is also consulting with and guiding groups in the Houlton and Fort Fairfield areas to develop projects to be funded through the Potato Marketing Improvement Program, through which the citizens of Maine voted to provide $5 million to upgrade storage and central packing facilities, requiring an increase in cooperative organizations.

2. Continue and expand work with vegetable growers organizations in Central and Southern Maine to improve marketing efforts. These include the marketing of fresh produce through seasonal retail vegetable outlets, designed to maximize returns. This is consistent with and supportive of this Department's commodity development programs. In the next two years sales should be in the range of $60,000 to $100,000 annually and expand from there. Targeted areas are Boothbay, Augusta, and Ellsworth.

3. Improve business practices of existing fisheries co-ops in Maine. Presently the ACS office is working with 20 groups. A part of its effort involves co-op education (principles of cooperatives) and management skills for co-op directors.

4. Give aid to a craft cooperative in the Freeport area (Praxis) which provides income for rural residents to improve business techniques.

5. Continue assistance to the Merrimack Growers Cooperative in Concord, New Hampshire. While the ACS office is located in Maine its responsibilities covers the four northern New England states.

These, and contemplated programs, fully justify the existence of this office. The program has overcome its expected start-up problems and is now proving to be significant and critical to our agricultural constituents. It appears to me that you might want to discuss the Administration's proposals and the effect they may have on Maine/New England agriculture with your Congressional counterparts in New Hampshire, Vermont and Massachusetts.

If you need further information, please call.

Sincerely,

Stewart N. Smith
Commissioner

February 11, 1983

The Honorable George J. Mitchell, Senator
145 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator ~~Mitchell~~ George

I just learned that USDA is attempting to divert $20 million of the $83,429,000 appropriated for FY 1983 Brucellosis Program to other uses. I believe that the Appropriations Committee mandated the use of the full $83 million for the eradication of Brucellosis, but USDA has requested permission from the Committee to reallocate $20 million of those funds for other purposes within the APHIS programs.

It is very important to the dairy and livestock farmers of Maine to maintain a strong Brucellosis Program. We are a brucellosis-free state at the moment and have earned that distinction by utilizing the federal program in conjunction with our own. It would be difficult for us to maintain a brucellosis-free status without the support of the federal program.

Because the Brucellosis Program has been so successful, the Appropriations Committee directed the USDA to make a $10 million rather than a $30 million cut in the program for FY 1983. I urge you to assure that the funds directed to the Brucellosis Program are allocated to it and that Maine gets its fair share.

Thank you for looking into this most important program.

Sincerely,

Stewart N. Smith
Commissioner

LETTER FROM HON. CHRISTOPHER J. DODD, A U.S. SENATOR FROM CONNECTICUT

March 31, 1983

The Honorable Thad Cochran
Chairman
Subcommittee on Agriculture,
Rural Development, and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Thad,

Thank you for your letter informing me of the coming hearings of the Appropriations Subcommittee on Agriculture, Rural Development, and Related Agencies regarding the FY 84 budget request.

I would like to express to the Subcommittee my concern about some of the cuts proposed for conservation programs in the USDA Soil Conservation Service. Specifically, the Resource Conservation and Development program is scheduled to be terminated through zero funding, and the budget for watershed protection operations is slated to be halved.

Both of these are important soil and water conservation programs which make a significant contribution to the protection of our resource base. In my state SCS has implemented numerous useful and valuable projects under these programs. I know from conservation leaders in Connecticut that farmers and rural citizens are greatly involved in these programs and that the benefits to our resources far outweigh the small costs involved. I feel, therefore, that it would be extremely short-sighted to reduce or eliminate such programs for the sake of the small monetary savings involved.

I hope that your subcommittee will give careful consideration to these matters in drafting the appropriations bill. Thank you for giving me the opportunity to comment on these matters.

Sincerely,

CHRISTOPHER J. DODD
United States Senator

STATEMENT OF ESTHER PETERSON

ON OCTOBER 1, 1982, THE U.S. DEPARTMENT OF AGRICULTURE (USDA) STOPPED DISTRIBUTING FREE CONSUMER PUBLICATIONS THROUGH THE CONSUMER INFORMATION CENTER IN PUEBLO, COLORADO. LOOKING AT USDA'S FY 1984 BUDGET REQUEST, I SEE THAT IT AGAIN OMITS FUNDS FOR THIS WORTHWHILE ACTIVITY. THE LOSS OF THESE HELPFUL AND VALUABLE USDA BOOKLETS IS A SERIOUS DISSERVICE TO THE AVERAGE CONSUMER. THE AMERICAN PUBLIC IS BEING DEPRIVED OF INFORMATION THAT IS THE RESULT OF PROGRAMS FUNDED AT TAXPAYERS' EXPENSE. DOESN'T USDA HAVE AN OBLIGATION TO CONTINUE SHARING THIS INFORMATION WITH THE PUBLIC?

THE PUBLICATIONS THAT USDA HAS WITHDRAWN FROM THE CONSUMER INFORMATION CATALOG ADDRESS IMPORTANT TOPICS OF CONCERN FOR THE AVERAGE CONSUMER. BOOKLETS ABOUT PURCHASING, GROWING AND PRESERVING FOOD SUCH AS YOUR MONEY'S WORTH IN FOODS AND HOW TO BUY FOOD ECONOMICALLY ARE NO LONGER AVAILABLE TO THE PUBLIC FREE OF CHARGE. MONEY MANAGEMENT BOOKLETS ON HOUSEHOLD RECORD-KEEPING AND FINANCIAL PLANNING FOR RETIREMENT ARE NO LONGER AVAILABLE. AND, HOUSING BOOKLETS SUCH AS WEATHERIZE YOUR MOBILE HOME AND HOME INSULATION ARE ALSO NO LONGER AVAILABLE TO THE PUBLIC.

THE DECISION BY USDA TO STOP DISTRIBUTING INFORMATION TO THE PUBLIC IS PERPLEXING TO ME AS ONE FAMILIAR WITH USDA STATED POLICIES IN THIS AREA. AS SPECIAL ASSISTANT TO PRESIDENT CARTER FOR CONSUMER AFFAIRS, I WAS RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF EXECUTIVE ORDER 12160. THIS EXECUTIVE ORDER, ENTITLED "PROVIDING FOR ENHANCEMENT AND COORDINATION OF

FEDERAL CONSUMER PROGRAMS", IS STILL IN FORCE TODAY. THE ORDER REQUIRED EACH AGENCY TO DEVELOP AND MAINTAIN A CONSUMER PROGRAM WITH FIVE ELEMENTS, INCLUDING THE DEVELOPMENT OF INFORMATIONAL MATERIALS FOR CONSUMERS. EXECUTIVE ORDER 12160 STATES:

> "AGENCIES SHALL PRODUCE AND DISTRIBUTE MATERIALS TO INFORM CONSUMERS ABOUT THE AGENCIES' RESPONSIBILITIES AND SERVICES, ABOUT THEIR PROCEDURES FOR CONSUMER PARTICIPATION, AND ABOUT ASPECTS OF THE MARKETPLACE FOR WHICH THEY HAVE RESPONSIBILITY."

THE USDA CONSUMER PLAN PUBLISHED ON JUNE 9, 1980, STATED THAT IT WOULD:

> ". . . ENSURE THE MOST EFFECTIVE USE OF EXISTING MATERIALS AND DISSEMINATION METHODS. AND, THE DEPARTMENT INTENDS THAT CONSUMER EDUCATION AND TECHNICAL ASSISTANCE WILL BE INTEGRAL PARTS OF THE PROCESS OF INFORMING AND COMMUNICATING WITH THE CONSUMING PUBLIC. EDUCATION WILL INCLUDE HELPING CONSUMERS KNOW HOW TO USE DEPARTMENT INFORMATION."

MORE RECENTLY, SECRETARY BLOCK STATED IN THE FOREWARD OF THE 1982 YEARBOOK OF AGRICULTURE THAT:

> "PEOPLE AROUND THE COUNTRY BENEFIT FROM AUTHORITATIVE INFORMATION ABOUT AGRICULTURE AND FOOD, DEVELOPED BY EXPERTS FROM INSIDE AND OUTSIDE THE DEPARTMENT."

I DON'T SEE HOW THE SECRETARY AND OTHER USDA OFFICIALS CAN MAKE THESE STATEMENTS AND THEN NOT DISTRIBUTE THEIR PUBLICATIONS THROUGH THE CONSUMER INFORMATION CENTER. USDA WAS DISTRIBUTING 3 TO 5 MILLION FREE PUBLICATIONS A YEAR THROUGH THE CONSUMER INFORMATION CENTER BEFORE IT WITHDREW FROM THE PROGRAM. LAST YEAR, CONSUMER INFORMATION CATALOGS CONTAINED AN AVERAGE OF 25 FREE USDA TITLES PER EDITION. WHERE CAN CONSUMERS NOW TURN FOR THIS INFORMATION?

Consumers can't turn to other Federal agencies because other agencies do not have the expertise or mandate to fill the information void in such important topic areas as nutrition, food, money management and housing. They can't write directly to USDA because USDA does not fill requests from consumers who write to the Department for free publications. USDA has sharply curtailed all of its free publication distribution except through members of Congress. And, they can't even buy the withdrawn USDA publications, because USDA is not authorized to charge user fees for consumer booklets, and the Government Printing Office does not have all the withdrawn titles in its sales program.

In conclusion, I am very concerned about the far-reaching and long-range effects of USDA's decision to withdraw from the CIC program. The present administration has stressed the vital role informed and educated consumers play in a healthy and growing economy. Secretary Block has stated that informed shoppers can be the major force that guides producers and marketers toward greater efficiency. USDA's participation in the Consumer Information Center program during FY 1984 and beyond would come at a time when information is increasingly important to farmers, to consumers and to the effective functioning of our economic system. Therefore, I strongly urge this committee to direct USDA to resume participation in the Consumer Information Center's free publication distribution program.

STATEMENT OF CAROLYN A. ANTHONY, HEAD OF INFORMATION AND PROGRAMING SERVICES, BALTIMORE COUNTY PUBLIC LIBRARY

Summary:

I protest the decision by the U.S. Department of Agriculture to curtail the printing and distribution of free publications of general consumer interest. Public libraries have been hit hard by inflation in the cost of books and periodicals that has outstripped other increases in the cost of living. We simply are not able to purchase as many titles or as many copies of items as in past years.

Publications from the U.S.D.A. on nutrition, gardening, conserving energy and keeping family records have been standard items in the pamphlet file which is heavily used, particularly for topics such as those mentioned above. We have found many of the publications to be concise and helpful in answering reference questions and we have also featured the uncopyrighted information from these publications in an information column in our bimonthly Calendar of Events for the library system.

Many patrons have thus become aware of the usefulness of these publications and have requested them through the Consumer Information Catalog. We have heard from patrons that a number of these publications are no longer available through the Consumer Information Center "because the U.S. Department of Agriculture is not able to provide funds for their continued distribution." (excerpt from a reply received by a patron from the Consumer Information Center)

While I recognize the responsibility of management to contain costs and to see that the costs for limited-interest services are borne by those who make use of them, the cost benefit of making available single, free copies of publications to libraries and individuals who request them should not be overlooked. Public libraries and the U.S. government are partners in the effort to ensure the availability of information to the public, an objective of the utmost priority in a democratic society. If people are motivated enough to request publications in writing as they do through the Consumer Information Catalog, there is a real need for that information and a great likelihood that it will be put to use.

I request that strong consideration be given to resuming distribution of U.S.D.A. publications through the Consumer Information Catalog and to maintaining the program of printing and publication which must have a small cost indeed compared to the public benefit.

Advantages of U.S.D.A. publications over those available commercially:

The U.S.D.A. publications focus on single issues of immediate, practical concern to consumers. The format is most appropriate for addressing a specific information need as the user is not required to sift through a compilation of related topics to locate the information most relevant to his concern. The information presented is factual, authoritative and perceived to be reliable. Publications are generally written in clear, concise prose which is neither condescending nor elevated in language and tone. Finally, the publications are attractively printed with type which is large enough for easy reading, clear layout including numerous headings and subheadings, and excellent quality photographs which supplement the text. While these features may at first sound unnecessary, they are extremely important in encouraging the reading and use of information which might otherwise be passed over as boring facts.

Problem with current practice:

Increases in the price of publications have been so substantial as to discourage purchase and use. As an example, the publication What Shall I Feed My Baby?, issued by the Food and Nutrition Service in June, 1981, was initially available free for a single copy. A recent order by the library for a single copy was filled at a price of $3.00. A price of $3.00 for a 50 page publication which is ordered sight unseen sounds exorbitant when compared with the price, for example, of a mass market paperback on a similar subject. Of course, the paperback rarely has photographs, while it has much more text which makes it more difficult to focus on the information and to absorb it. The net result is a loss to the consumer. Unfortunately, the loss is probably not perceived by most consumers as the opportunity for comparison shopping including government publications is rare.

It will become rarer still as the library cuts back on orders for government publications. The squeeze between increasing prices and decreasing book budgets necessitates such cutbacks.

What is the objective of the U.S.D.A. printing and publications program? If it is to ensure that quality information on topics essential to everyday living is available to the public, that objective is no longer being met because of the price barriers and cutbacks. If the objective is to turn a profit and compete with private information providers, the distribution method is inappropriate. The publications will need to appear in bookstores, side by side with commercial publications where they may be viewed and evaluated. It should be acknowledged, moreover, that a large segment of the population which either cannot pay for the information or does not appreciate the monetary value of information will go without.

Solution: Resume the practice of allowing libraries and individuals to order single copies of most publications free of charge. If people are motivated enough to request publications in writing as they do through the Consumer Information Catalog, there is a real need for that information and a great likelihood that it will be put to use. The availability of single, free copies ensures that essential information is accessible to people who cannot pay for it. Setting up barriers to the acquisition of vital information in a democratic society is short sighted and will have repercussions which will continue to be felt many years in the future.

STATEMENT OF ROBERT J. MULLINS, DIRECTOR OF LEGISLATIVE SERVICES, NATIONAL FARMERS UNION

On behalf of the members of the National Farmers Union, a general farm organization representing the interests of independent family farmers and ranchers, I appreciate the opportunity to submit to the Subcommittee these views on the overall FY1984 budget and specifically, on the appropriations for the functions of the United States Department of Agriculture for FY1984.

As this Subcommittee prepares its recommendations for funding the various activities of USDA, an in-depth evaluation of USDA programs is essential. The public resources which will be directed to agricultural programs must, in our opinion, focus on improving farm income, protecting our soil and water resources, and maintaining an acceptable level of services for farmers and other rural residents.

Effective farm programs require effective administration and adequate funding to accomplish their stated purposes.

Inadequate funding of both program activities and management staff compound the problem and result in the economic difficulties farmers have experienced during the past three years.

U.S. budget priorities have been drastically reoriented in the Fiscal 1982 and 1983 budgets and would be further affected by the Administration's 1984 recommendations.

Bad budget priorities result not only in bad national economic strategy but in ineffective farm policy.

DETERIORATION OF FARM PRICES AND INCOME

As an organization of family-scale farm operators, National Farmers Union is concerned with what the federal budget does for and to agriculture.

We acknowledge that agriculture was in a weakened and difficult situation as of the beginning of 1981. We do not propose to level blame on the Administration for pre-existing conditions.

However, the opportunity has existed since January 1981 for courses of action which could have improved the economic viability of our farming industry. It is reasonable and proper to take stock of policy changes since that time, whether program changes or budget changes, and evaluate their impact upon farm income.

By any of several measurements, farm economic conditions have deteriorated markedly.

In ATTACHMENT "A", we show the average prices received by farmers for 16 commodities in January 1981 and January 1983. In dollars and cents, prices of 12 of the 16 commodities are lower today than two years ago.

But, when we look at the purchasing power of those farm commodity prices, as we do in ATTACHMENT "B", we see that only one of the 16 is higher today than two years ago. That single commodity is hogs. The 1981 market was so demoralized, that there was almost no place to go but up.

In ATTACHMENT "C", we show the overall purchasing power of U.S. farmers as shown in the U.S. parity ratio. It has declined from January 1981, when it was 66%, to January 1983, when it was 54%, a drop of almost 20% in net purchasing power.

At 54%, the purchasing power is comparable to the worst of the era of the Great Depression.

In ATTACHMENT "D", we compare the purchasing power of net farm income over the period of 1910 to 1982 in constant dollars. By this measurement, net income of U.S. farmers in 1982 dropped very close to the average figure for the 1930-34 era. Of course, there have been changes in the nature of farming in those fifty years, but that does not explain away what is still a devastating comparison.

THE ROUTE TO A BALANCED FEDERAL BUDGET

In the view of National Farmers Union, the achievement of a balanced federal budget in a sound and lasting way can come only from policies resulting in full employment, full production and full parity.

Attempts to balance the federal budget without attention to the basic situation of foundation industries, such as agriculture, housing and construction, automobiles and heavy industry, not only will prove ineffectual but counter-productive as well as is clearly shown through the national experiment with Reaganomics the past two years.

The federal deficits have been severely aggravated by the economic policies which have been in effect since January 20, 1981. When Congress completed work on the fiscal 1983 budget last year, it was anticipated that the deficit would be about $104 billion. Now, because of the recession and the tax rollback for higher-income taxpayers, the deficit will be on the order of $207 billion.

Without a change in basic economic strategy, the deficits could continue at or near $200 billion for the next several years.

Thirty-nine presidents from George Washington through Jimmy Carter were responsible for a total of $766.4 billion in federal deficits.

The first four Reagan Administration budgets will have a $565 billion cumulative deficit. If current policies continue another two years thereafter, the cumulative deficit will top the deficit for the preceding 191 years.

NATIONAL FARMERS UNION ATTITUDE ON LEGISLATION REQUESTED IN 1984 USDA BUDGET

NFU LOOKS FAVORABLY ON:

- * Replenishing of capital for Commodity Credit Corporation.
- * Supplemental request to fund Food Stamps for fiscal 1983.
- * Extension of the Consolidated Farm and Rural Development Act through fiscal 1986.
- * Broadening of the language of Section 416 of the Agricultural Act of 1949 to authorize donation of farm commodities overseas, in addition to the currently authorizing language on dairy products.
- * Election of community ASCS committeemen only once every three years, with the new system, we suggest, to begin in 1985.

NFU OPPOSES THESE PROPOSALS:

- * Authority for USDA to reduce target price levels for 1984 and 1985, holding them at the 1983 level.
- * Repeal of the mandatory honey price support program.
- * Less than continuous inspection for meat, poultry and eggs.
- * Recovery of administrative costs of various programs through user fees (market orders, plant variety protection act, wool promotion, plant and animal quarantine, etc.)
- * Substitution of a block grant for school breakfast, child care and summer feeding programs.
- * Imposition of a mandatory workfare provision in the food stamp program.
- * Delay of six months in the cost of living adjustment for school lunch and food stamp programs.

NEEDED: A CONCEPT OF "NET UNRECOVERABLE EXPENSE"

The commodity operations of the CCC need to be recognized as commercial-type operations. When purchases are made, they show as expenditures in the federal budget, but the assets acquired do not show anywhere in the accounting system. Such assets are not valueless.

CCC outlays in a particular budget year normally cover the operations associated with the preceding crop year. The expenditures in one budget year are compared with the redemptions received in that year from previous CCC operations and this indicates whether or not there is a budget surplus or deficit.

However, no attempt is made to do an accounting of the actual cost of acquiring, storing, transporting, handling and disposing of the inventories acquired in commodity stabilization operations. This could span one, two or more budget years before the particular stocks run the cycle from acquisition to disposal. And until that occurs, no one can accurately say what the true net cost has been.

In our view, therefore, a distinction should be made in the USDA budget between investments in inventory and the eventual net unrecoverable cost of such activities.

Without such an approach, projections of the cost of certain farm commodity stabilization operations are little more than guesswork. During a year, cost estimates can be affected by changing weather, crop conditions and domestic and world demand shifts, which no one is likely to foresee.

It is significant, however, that over a period of 40 years, from 1933 to 1973, CCC net realized losses on commodity operations ran only about one-fourth of the original investment. Those loss figures included the storage and handling expense.

PROPOSAL FOR A CAPITAL BUDGET

In regard to credit programs of the Department of Agriculture, National Farmers Union believes that they should all either be placed off-budget or should show only as part of a "capital budget."

There should be no "cap" on direct, insured or guaranteed loans.

Federal credit programs are a desirable and beneficial activity and are a method of allocating credit to productive purposes.

Federal activity in the credit markets is only a small part of total public and private borrowing, representing a minor fraction of the overall public and private debt load.

While the bulk of the farm loans come from the private sector (91% in the case of real estate loans and 77% in the case of short-term loans), the availability of economic emergency, natural disaster and other loans from federal agencies is crucial to the survival and continuation of many operators in farming, and helps the private sector by handling loans on which there is a risk they are reluctant to assume.

Farmers Union continues to oppose any proposals to limit access of Rural Electric and Rural Telephone borrowers to the Federal Finance Bank.

A strong argument can be made for accounting of federal loans in a "capital budget." Federal loans represent little or no ultimate cost to the government. The net cost of such programs is normally small and would be even smaller if the policy of the Federal Reserve Banking system were targetted to keep interest rates within a reasonable low range.

Federal loan guarantee programs cost nothing unless there are eventual defaults on loans.

NATIONAL FARMERS UNION
COMMENTS ON BUDGET ALLOWANCES
BY AGENCY AND FUNCTION

(Figure in parentheses is the
Administration budget recommendation)

AGRICULTURAL RESEARCH SERVICE

The proposed reduction in 1984 outlays by $4.2 million to $472.3 million is mistaken and short-	($472 million)
sighted. NFU proposes a 1984 level of	$499 million

COOPERATIVE STATE RESEARCH SERVICE

($232 million)
NFU proposes a 1984 outlay level of .... $241 million

FEDERAL AGRICULTURAL EXTENSION SERVICE

Instead of the proposed $32.5 million reduction, ($295 million)
NFU proposes a 1984 outlay level of .... $343 million

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

The ASCS system will have an unusually heavy work load due to the acreage reduction program and the PIK operation. An increase, rather than a $26 million reduction, is justifiable. Therefore, ($262 million)
NFU recommends a 1984 outlay level of .... $320 million

FOREIGN AGRICULTURAL SERVICE

We support the basic proposal to increase the funding for FAS by $10 million for 1984. We propose addition of another $5 million, designated solely for negotiation of agreements to lift the level of world commodity prices. NFU ($85.2 million)
recommends .... $90 million

COMMODITY CREDIT CORPORATION

It is impossible because of the vagaries of weather, crop conditions and market demand to project cost of stabilization operations very accurately. The CCC cost should continue to be open-ended. However, to allow for CCC loan increases, dairy costs, and other needs, NFU ($9,255 million)
recommends .... $14,400 million

PUBLIC LAW 480

This program needs to be vigorously expanded to aid needy in the developing countries and to create new markets for the products of American farms. It is not sufficient therefore merely to carry forward the program at existing levels. ($1,052 million)
NFU recommends for 1984 an outlay level of .... $1,550 million

FOREST SERVICE

($1,931 million)
NFU recommends an outlay level for 1984 of .... $2,240 million

SOIL CONSERVATION SERVICE

An 8% reduction of funding ($118 million) for Soil Conservation Service activities is unwise and likely to result in most costly repairs in future years. We advocate restoration of funding for the RC&D program and active development of watershed projects and flood prevention activities. NFU therefore proposes a 1984 outlay ($540 million)
level of .... $640 million

ACP AND RELATED CONSERVATION ACTIVITIES

Far too little is being invested publicly in on-farm soil conservation treatments. We urge an appropriation of $250 million for the ACP alone, plus $12.5 million for forestry incentives practices, $8.8 million for the waterbank, and $8.8 million for Emergency Conservation. ($56 million)
NFU therefore urges an outlay level of .... $280 million

FEDERAL CROP INSURANCE

We endorse the proposal for 1984 outlay levels at .... $400 million

($400 million)

RURAL DEVELOPMENT

NFU proposes an outlay level for 1984 of .... $3,400 million

($2,421 million)

FOOD STAMPS AND CHILD NUTRITION

The Nation's young and needy are in no way responsible for national policies which have resulted in the persisting recession. We object to the proposed 9% cut in food stamps, the delay in cost of living adjustments, and the 7% cut in the child nutrition programs. We do not favor changing the school breakfast, child care and summer food programs to a block grant program. We urge that the elderly feeding program be retained in USDA. We object to cuts in the human nutrition information services. We ask reinstatement of the special milk program at $120 million. NFU therefore proposes a 1984 outlay level of .... $18,280 million

($15,958 million)

FEDERAL GRAIN INSPECTION SERVICE

These services are maintained for the general public interest and should therefore be funded from the treasury, not from user fees. NFU proposes a return to federal funding at .... $12 million

($6.8 million)

ANIMAL, PLANT HEALTH SERVICES

We frown upon proposals to phase down the brucellosis eradication program or damaging reductions in other federal protective services. NFU proposes a 1984 outlay level of ..... $295 million

($242 million)

FOOD SAFETY AND INSPECTION SERVICES

We decry recommendations to provide less than continuous meat and poultry inspection services. Random inspections take too high a risk. Unwholesome products, even though isolated, can cause hysteria and resulting damage to farm markets. NFU proposes a 1984 outlay level of .... $345 million

($334 million)

AGRICULTURAL COOPERATIVE SERVICE

Farmers need a vigorous and effective research and technical service from the Agricultural Cooperative Service. Instead of a substantial cut, a meaningful increase is justified. We are critical of the rescission proposal for the 1983 budget which would take away funds for activities including research on farm export expansion. NFU therefore proposes a 1984 outlay level of .... $5.7 million

($4.2 million)

AGRICULTURAL MARKETING SERVICE

This agency performs functions which are essential to producers. We object to proposals to shift some administrative costs to user fees. This federal regulatory activity is in the general public interest and should continue to be funded from the public treasury. NFU proposes a 1984 outlay level of .... $116 million

($110 million)

PACKERS AND STOCKYARDS

($9.0 million)
NFU proposes a 1984 outlay level of .... $9.2 million

RESEARCH AND STATISTICAL SERVICES

($98.5 million)
NFU proposes a 1984 outlay level of .... $100 million

USDA CREDIT ACTIVITIES AND PROGRAMS

FmHA REGULAR FARM LOANS

The fiscal 1984 budget proposes a $350 million increase in insured farm operating loans to $1,810 million. This is the only increase, while guaranteed farm operating loans are kept at the same $50 million level as last year, and all other loan activities are cut or eliminated. Insured farm ownership loans are cut by $100 million, guaranteed farm ownership loans by $25 million, soil and water loans by $27 million. Watershed, flood prevention and RC&D loans are discontinued. Overall, regular farm loans will total $2,450 million, an increase of 6%.

It is proposed to cut emergency disaster loans from $2 billion to $1,540 million.

No mention is made of the $600 million in economic emergency loan funds made available by the Congress.

NFU opposes the placing of an annual cap on loan program levels. For fiscal 1984, NFU urges that at least $5 billion in loan funds be made available for the regular loans, ($4,541 million)
disaster loans and economic emergency loans ...... $5,000 million

COMMUNITY DEVELOPMENT LOANS

The budget proposes to reduce loans for water and waste disposal by $125 million, community facility loans by $30 million, and proposes to terminate alcohol production facility loans.

NFU proposes that water and waste disposal loans and community facility loans be maintained at least at 1983 levels. Alcohol loan funds should ($350 million)
be restored. Funding for 1984 should be set at .. $805 million

RURAL HOUSING PROGRAMS

The budget proposes to reduce rural housing loans by $3 billion and replacement by a rural housing block grant program of $850 million. The bulk of the cut would come from the subsidized low-income loan program. ($1,224 million)
NFU urges a 1984 program level at .... $3,500 million

RURAL ELECTRIFICATION AND TELEPHONE LOANS

The Rural Electrification Administration (REA) makes insured loans and guarantees loans for extending and improving electric and telephone service in rural areas. Loan funds are obtained through the Federal Financing Bank. There are no direct government loans involved, therefore the loan program is off-budget. Nevertheless, the 1984 budget proposes reductions and limits on both loan programs. The Administration proposes to set electric loans at $3,735 million, a reduction of 31%; and proposes to set telephone loan funds at $200 million, a 49% cut.

NFU opposes the imposition of any ceiling on these loan programs. A minimum of at least $5.5 billion should be available for electric
loans and $400 million for telephone loans ($4,100 million)
in fiscal 1984, a total of .... $5,900 million

STORAGE FACILITY LOAN PROGRAM

The budget proposes to provide only $30 million for the farm storage facility loan program for 1984, a reduction of $82 million.

Believing that it is premature to assume that there will be little demand for farm
storage facility loan funds, NFU proposes ($30 million)
that a 1984 level be available at .... $120 million

ATTACHMENT "A"

PRICES RECEIVED BY U.S. FARMERS, SELECTED COMMODITIES

January, 1981, and January, 1983

(SOURCE: USDA "Agricultural Prices" Reports)

Commodity	1981	1983
WHEAT, bu.	$ 4.22	$ 3.54
RICE, cwt.	12.90	8.09
CORN, bu.	3.32	2.32
OATS, bu.	2.03	1.47
BARLEY, bu.	3.10	2.08
GRAIN SORGHUM, cwt.	5.51	4.14
COTTON, lb.	.778	.566
PEANUTS, lb.	.422	.242
TOBACCO, lb.	1.61	1.785
SOYBEANS, bu.	7.54	5.56
FLAXSEED, bu.	7.56	4.77
BEEF CATTLE, cwt.	59.10	62.40
HOGS, cwt.	40.80	54.90
MFG. MILK, cwt.	13.00	13.90
WOOL, lb.	.906	.532
EGGS, doz.	.648	.501

ATTACHMENT "B"

AVERAGE PRICES RECEIVED BY FARMERS AS A PERCENT OF PARITY
SELECTED COMMODITIES, JANUARY, 1981, and JANUARY, 1983

(SOURCE: USDA "Agricultural Prices" Report)

Commodity	% of Parity, 1981	% of Parity, 1983
WHEAT	61%	49%
RICE	64%	39%
CORN	69%	46%
OATS	79%	51%
BARLEY	70%	43%
GRAIN SORGHUM	68%	49%
COTTON	68%	48%
PEANUTS	104%	56%
TOBACCO	62%	53%
SOYBEANS	62%	43%
FLAXSEED	61%	36%
BEEF CATTLE	65%	57%
HOGS	50%	63%
MFG. MILK	69%	62%
WOOL	47%	26%
EGGS	55%	44%

ATTACHMENT "C"

PARITY RATIO OF PRICES RECEIVED TO PRICES PAID
BY U.S. FARMERS, MONTH-BY-MONTH
January, 1981 To The Present

(Source: USDA AGRICULTURAL PRICES Report)

Month	1981	1982	1983
January	66%	57%	54%
February	65	57	56
March	64	57	56

April	63	58
May	63	59
June	63	59
July	63	58
August	61	57
September	58	58
October	57	55
November	57	55
December	57	54

ATTACHMENT "D"

PURCHASING POWER IN 1967 DOLLARS OF FARM OPERATOR FAMILY NET INCOME FROM FARMING, SELECTED YEARS, 1910-1982

Year	CPI all items 1967=100	Income of Farm Operator Families Net income from farming Total	Per farm
	Percent	Mil. dol.	Dol.
1910-14	29.0	13,739	2,141
1915-19	39.7	17,400	2,685
1920-24	53.2	9,466	1,456
1925-29	52.0	11,728	1,812
1930-34	43.1	6,939	1,041
1935-39	41.9	11,629	1,752
1940	42.0	10,671	1,681
1941	44.1	14,717	2,338
1942	48.8	20,191	3,254
1943	51.8	22,656	3,720
1944	52.7	22,169	3,700
1945	53.9	22,842	3,827
1946	58.5	25,757	4,347
1947	66.9	22,951	3,909
1948	72.1	24,499	4,222
1949	71.4	17,899	3,127
1950	72.1	18,929	3,352
1951	77.8	20,481	3,774
1952	79.5	18,819	3,620
1953	80.1	16,205	3,251
1954	80.5	15,370	3,204
1955	80.2	14,096	3,029
1956	81.4	13,826	3,063
1957	84.3	13,149	3,008
1958	86.6	15,206	3,592
1959	87.3	12,271	2,995
1960	88.7	12,985	3,277
1961	89.6	13,345	3,489
1962	90.6	13,316	3,606
1963	91.7	12,835	3,593
1964	92.9	11,294	3,267
1965	94.5	13,650	4,067
1966	97.2	14,362	4,409
1967	100.0	12,339	3,903
1968	104.2	11,825	3,851
1969	109.8	13,017	4,339
1970	116.3	12,168	4,126
1971	121.3	12,063	4,157
1972	125.3	14,896	5,208
1973	133.1	25,056	8,875
1974	147.7	17,691	6,330
1975	161.2	15,183	5,487
1976	170.5	10,957	4,002
1977	181.5	10,133	4,126
1978	195.4	13,540	5,558
1979	217.4	15,040	6,189
1980		8,200	3,377
1981		9,200	3,779
1982		7,100	2,958

(Source: USDA "Economic Indicators of the Farm Sector")

STATEMENT OF DR. JACK D. EARLY, PRESIDENT, NATIONAL AGRICULTURAL CHEMICALS ASSOCIATION

The National Agricultural Chemicals Association (NACA), is a nonprofit trade association of manufacturers and formulators of pest control products employed in agricultural production. NACA's membership is composed of the companies which produce and sell virtually all of the technical crop protection materials (active ingredients) and a large percentage of the formulated products registered for use in the United States.

The subject of our testimony concerns the USDA Agricultural Research Service (ARS) Program Plan (USDA Misc. Pub. No. 1429) and the companion 6-Year Implementation Plan which were made public to grower groups and agribusiness associations on February 17, 1983.

In opening our comments, we must give the highest compliments to the ARS for developing a truly outstanding Agricultural Research Service Program Plan. We understand that nearly 500 scientists in ARS made contributions to it. However, the companion 6-Year Implementation Plan proposes a $29 million cut and $7.5 million redirection of research in the area of plant productivity and protection research for a potential loss of approximately $36.5 million (Table 3, 6-Year Plan). This, along with a $7.6 million redirection proposed in the FY '84 budget, equals a possible loss of approximately $44.1 million for plant productivity and protection research.[1/] What makes this matter even worse is that the budget is based on the zero growth concept so that the loss would be maintained through 1990.

We agree with the ARS Plan to re-emphasize basic research, but not at the expense of plant productivity and protection research as proposed in the 6-Year Plan. There are potential adverse implications inherent in the 6-Year Plan that may

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[1/] In prior testimony before the House Appropriations Committee and in our Analysis and Summary Report of the 6-Year Plan, we included the full $17 million for redirection proposed in the ARS FY '84 budget. ARS has kindly informed us that a lesser amount - $7.6 million of the $17 million redirection is concerned with plant production and protection research. We respectfully stand corrected and have amended our figures accordingly.

affect our agricultural system nationally that compel us to comment.

Because of the unprecedented magnitude of the proposed reductions in plant productivity research, we have prepared the attached Analysis and Summary Report that analyzes the implications of this action in more detail (see Appendix A).

We find it difficult to understand why the ARS would propose a reduction of $29 million in the critical area of plant productivity and protection research. For example, the reduction depletes the Agency of its most vital and reliable resource, the research scientist. The proposed reduction would mean the estimated loss of some 241 research positions from crop productivity research -- 146 of these in plant protection research. This would create serious imbalances and gaps that would critically impair the coordinated mainstream research programs in ARS.

The Plan lists ten reasons for abandoning a large segment of the ARS plant productivity research, starting with the reason that we have surpluses of major agricultural commodities on hand. The implication is that plant productivity and protection research only contributes to or creates a problem of having too much and, therefore, should not be supported.

Surpluses can be wiped out or created overnight by acts of God or political decisions. We believe that our consumer public is more comfortable knowing that there are adequate supplies of food at low prices than knowing that their government is reducing its support for food production research.

We believe the title term "plant productivity" does not truly represent the kinds of essential research that ARS does under that broad title, and that it can be misinterpreted. The agricultural community would see it more as crop production assurance research. What is being overlooked is that the ARS productivity research program has evolved during the recent lean budget years into a well-coordinated, scientifically efficient, and responsive organization. The 6-Year Plan fails to recognize that the ARS productivity research system contributes to increased efficiency of production, increased reliability of crop yields every year, reduced energy use, reduced cost of production, reduced losses to weeds, insects, diseases and nematodes, improved quality of agricultural products, and reduced soil erosion. We regard this research to be that which undergirds and helps maintain our progressive agricultural system in the national interest. A strong research program provides our farmers the flexibility that they need to respond to national and international needs. One cannot, like a water faucet, just turn it on or off.

It should also be recognized that it is in the area of plant productivity and protection research where new knowledge from basic research in plant sciences provides the basis for applied practice which allows it to move toward a point of potential commercial utility.

The research supported by the $36 million appropriated in 1965 for research on pests and their control allowed great strides to be made in reducing the losses caused by insects, diseases, nematodes and weeds. The research program was comprehensive. It included both basic and applied research to develop genetic lines and crop cultivars resistant to pests, improved management practices, biological control, and safe uses of pesticides. Now, essentially, this whole appropriation is being transferred to other areas of research at a time when new and emerging problems in plant protection require a continuing effort. The needs for these types of research are critical and should not be reduced.

The economic benefits to farmers of that 1965 continuing appropriation have been rewarding. Just as an example, annual benefits totaling more than $10 billion have resulted from the use of technology developed by scientists in the Cooperative National Weed Research Program during the past five years.

On another issue, the need to continue the National Agricultural Pesticide Impact Assessment Program (NAPIAP) is also at hand. The present ARS staff, in conjunction with the Cooperative Extension Service and experiment station scientists, have done an outstanding job of credibly and factually documenting the benefit side of agrichemicals. Secretary Block earlier last month issued a Department regulation affirming the essentiality of this program in supporting the availability of agrichemicals for production agriculture. We would respectfully request favorable consideration for continued funding for the NAPIAP, according to the Secretary's Department regulation, which we have attached as Appendix B.

Our remaining concern involves the direct implication in the 6-Year Plan that affected parties, such as our industry, would have to do the research proposed to be abandoned by the ARS. We have always considered cooperation with ARS and the public sector to be most important. In this instance there is a question as to whether our industry has the desire or the physical or economic capabilities to do the more fundamental, non-proprietary research that must be done by the public sector and has been done in the past by the ARS.

Our member companies already have their research plans in place and their funds committed for at least the next five years. Additionally, the areas of research in question are beyond the scope, and in many cases the interest, of our member companies' perceived responsibility. It is our belief that this also may be true in some cases for land-grant universities and state experiment stations. In this regard, the proposed Plan can possibly create research gaps in critical areas, particularly where discontinuance of research information can erode elements of efficiency and cost-effectiveness in crop production.

On the surface, we support the ARS long-range strategy. But without additional information, the rationale for abandoning a substantial portion of the plant productivity and protection research as the means of implementing that strategy is unclear to us. No system is without some imperfections. The need for review according to a needs assessment to keep it current with changing times is necessary. However, a quantum change of the magnitude proposed for productivity research, considering our world population is only seventeen years away from the production needs of the year 2000, requires a detailed impact assessment open for public scrutiny and comment.

In the meantime, we urgently recommend that funds be appropriated to continue the research positions now in effect and, perhaps, even enhance the existing research programs in plant productivity and protection.

APPENDIX A

AGRICULTURAL RESEARCH SERVICE

6-YEAR IMPLEMENTATION PLAN, 1984-1990

OBJECTIVE TWO, PLANT PRODUCTIVITY AND PROTECTION

INTRODUCTION

The Agricultural Research Service developed a truly outstanding Agricultural Research Service Program Plan (USDA Misc. Pub. No. 1429). Nearly 500 scientists in ARS made contribution to the plan. Use of this broadly based expertise resulted in a clear description of research underway and the current needs for research without setting priorities.

The companion 6-Year Implementation Plan, however, proposes a $29 million cut and $7.5 million redirection of research in the area of plant productivity and protection research for a potential loss of approximately $36.5 million (Table 3, 6-Year Implementation Plan). This, along with ~~$17~~ $7.6 million* redirection proposed in the FY '84 budget equals a loss of approximately ~~$53.5~~ $44.1 million* for plant productivity and protection research. What makes this serious matter worse is that the budget is based on the zero growth concept so that the loss would be maintained through 1990. An arbitrary decision has been made to maintain the same percentages of funds allocated among the six objectives for research for the 6-year period.

The 6-Year Implementation Plan assumes, incorrectly in our perception, that productivity research only increases yield of crops. The agricultural community would see it more as crop production assurance research. What is being overlooked is that the ARS productivity research program has evolved during the recent lean budget years into a well-coordinated and scientifically efficient, and responsive organization. The 6-Year Plan fails to recognize that ARS productivity research contributes to increased efficiency of production, increased reliability of crop yields every year, reduced energy use, reduced cost of production, reduced losses to weeds, insects, diseases and nematodes, improved quality of agricultural products, and reduced soil erosion (Barrons, 1971).

We agree with the ARS long-range strategic plan and the reemphasis of basic research, but not at the expense of plant productivity and protection research. We regard this area of research to be that which undergirds and supports our efficient and progressive agricultural system in the national interest. Therefore, we oppose these cuts and redirections and are making it appropriately known.

IMPLICATIONS FOR PLANT PRODUCTIVITY/PROTECTION RESEARCH

$36 Million Appropriated in 1965 for Plant Protection Research

In 1965, the House Appropriations Subcommittee on Agriculture, under the leadership of Congressman Whitten, appropriated $36 million to ARS for research on pests and their control and basic research to safeguard the environment. Thanks to the research supported by these funds, great strides were made in reducing the losses caused by insects, diseases, nematodes and weeds, and the cost of their control, and in developing control technology that does not impair the environment. The research program was comprehensive. It included both basic and applied research to develop genetic lines and crop cultivars resistant to pests, improved management practices, biological control.

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*ARS has kindly informed NACA that a lesser amount, $7.6 million of the $17 million redirection proposed in the ARS FY 1984 budget, is concerned with plant production and protection research. We respectfully stand corrected and have amended our figures accordingly.

and safe uses of pesticides. It has been largely because of this research that "Silent Spring" has not occurred. Now, essentially, this whole continuing appropriation is being transferred to other areas of research at a time when new and emerging problems in plant protection require a continuing research effort by the public sector (ARS). The needs for these types of research are critical and should not be reduced.

Evolving Role for ARS

ARS Past Excesses Removed

The drastic shift from plant production and plant protection research does not take into account that the ARS budgets in the past 20 years have not kept up with inflation. Therefore, many of the established conventional areas of research, such as those in plant productivity and protection research (6-Year Implementation Plan, Objective 2) were already severely reduced. The present and remaining plant productivity and protection research is recognized as the strongest part of the ARS research program. Each of the sub-unit areas of plant productivity and protection research as: germplasm improvement, plant breeding, crop and grazing land management, plant protection, and agricultural engineering, has made and continues to make critically important contributions to agriculture. During this same time, ARS and its cooperators have been continually assessing critical needs for research, with strong emphasis on certain basic research areas such as photosynthesis, nitrogen fixation, genetic engineering, and plant stress.

ARS Productivity Research Includes Basic Research

ARS has obtained sizeable increases in funding to support the important basic research areas of photosynthesis, nitrogen fixation, genetic engineering, and plant stress. The allocation of new funds to support basic plant and animal research has already moved the ARS research program into high priority areas of basic research. Thus, the funding has increased ARS research on the above high priority needs while some other lines of research have been allowed to lapse. It is our judgment that current research programs in ARS and especially in universities are already effectively attacking many of the more important, high priority plant and animal research needs. For these reasons we question the extent to which the potential adverse impacts of the drastic reductions in plant productivity and protection research proposed in the 6-Year Plan have been evaluated. For some examples of accomplishments in plant productivity research, see Appendix I.

Short Term Crisis VS. Research Continuity

There has not been duplication of research programs by ARS, State experiment stations and industry; rather, there has developed a very fine complementary system. Such a multifaceted, long term research system cannot be turned off and on in response to short term crises situations such as temporary crop and animal surpluses without significant loss in technological information and its continuity to growers. Three years is the minimum for conducting a scientifically credible research project in plant productivity research.

New Funds Justified

It is unrealistic to abandon a large segment of ARS research that is a well-developed, mutually supportive, and productive system so that other research of importance can be increased. It is probable that increased budgetary support could have been elicited for those areas indicated for increase in the 6-Year Implementation Plan. These include human nutrition, soil and water conservation, commodity conversion and delivery, and integration of systems. If this option were followed, the effectiveness of plant productivity and protection research programs could have been maintained. ARS has a responsibility to request such funds to support and expand research in these critical areas.

There is no more important endeavor in government than assuring an adequate, safe, wholesome, and quality food supply. This is , in fact, the centerpiece of the new ARS Program Plan. Plant productivity and protection research contribute much to the goal and must continue to receive high priority. The need for additional support to fund the research on human nutrition, soil and water conservation, commodity conversion and delivery, and integration of systems, projected for increase should be obvious to administrators and elected officials alike. If there is justification for increased funds to support these research areas, such funds should be requested from Congress rather than dismantling plant productivity and protection research.

Impacts of Reducing Plant Productivity Research

Scientists Lost

The projected reduction of $29 million in plant productivity and plant protection research and $4 million in animal productivity research would create imbalances and critically impair these mainstream research programs in ARS. This means a reduction of 264 research positions and about an equal number of technical assistants. Research activities in ARS and its cooperative relationships with State experiment stations and with industry have evolved into a complementary and balanced research program that, along with its accomplishments, is the envy of the world.

The impact on plant protection research would be loss of 146 research positions. This is a loss of 41% of this important research area (Table 1).

Benefits Lost

The impact of the proposed reductions in plant protection is shown in Table 1. The cut of more than 35% in research on weed control and agricultural chemicals technology will cut the benefits at least 35% in the short run and perhaps more in the long run. The annual benefits totaling more than $10 billion (Shaw, 1982) that resulted from the use of technology developed by scientists in the Cooperative National Weed Research Program during the past five years will be reduced. A cut of 35% in research will reduce the benefits to growers and consumers by $3.5 billion a year. This is the impact of the research reductions in the weed research Approach Elements 2.4.6, 2.4.7, and 2.4.8 of the 6-Year Implementation Plan. Selected accomplishments in crop protection and production research that reduce production costs, increase efficiency in production, reduce losses caused by pests, and increase farm income, are listed in Appendix I. These are the kinds of research accomplishments that are projected for reduction in the 6-Year Implementation Plan.

Table 1. Impact on Agriculture of Proposed Reductions in Plant Protection Research.

Approach Element	Research Projects	Reductions Thousand Dollars	Research Positions	%
2.4.4	Control of Insects, Diseases, and Nematodes of Range and Pasture	500	4	28
2.4.5	Control of Insects, Diseases, and Nematodes of Field and Horticultural Crops	12,700	101	47
2.4.7	Weed Control Research in Range, Pasture, Forests, and Aquatic Sites	500	4	23
2.4.8	Weed Control Research in Field and Horticultural Crops	1,400	11	42
2.4.9	Biological Control of Weeds, Insects, Diseases, and Nematodes	700	5	17
2.4.10	Agricultural Chemical Technology to assure safe and effective use of pesticides and growth regulators	2,000	16	43
2.4.11	Vertebrate Pests	600	5	100
		18,400	146	41

Who Will Fill The Voids Left By The 6-Year Implementation Plan?

The unprecedented reduction in plant production research seems to have been decided without consultation with the State experiment stations or the private sector to see if they could fill the research gaps left by this decision.

Experiment Station Limitations

State agricultural experiment stations, as they cooperate, do not usually have the full set of resources, or may not have the regional and national motivation or authority, to do the kinds of research that will have been eliminated under the 6-Year Implementation Plan. For instance, one of the positions that might be lost under the 6-Year Implementation Plan is the weed control research program in peanuts at Tifton, Georgia. Because of this regional, in-depth research, the other nine peanut-producing states, cooperating in this research program, can adapt the research results and technology from Tifton after only limited state evaluation and adaptive research to verify results or to make appropriate adaptations to fit state and local conditions. Which of these states will assume responsibility for funding an in-depth, regional weed control research effort in peanuts? If the states do regional research, will it be as cost effective and efficient as the existing cooperative ARS, State experiment station research program?

Industry/Company Limitations

Industrial companies already have their research plans in place; their funds are already committed for the next five or more years. Besides, most of these areas of research are beyond the scope of a company's financial and physical capabilities. Companies can assume only those tasks that relate to their product under development or being marketed. Companies cannot assume those tasks, such as conducted by ARS and the public sector, that generate information of a general nature to help growers make agronomic and economic decisions.

Ten Factors Used to Decide Reallocation of Funds

Most of the 10 factors stated in the 6-Year Plan (Page 5) and used as decision points for reallocating funds out of plant and animal productivity and protection research appear in this interpretation to be inconsistent with ARS' stated goal "Sustain Production of Food and Fiber". Actually, the factors are open to a variety of interpretations. This is especially the case of surpluses and excess domestic production. While surpluses present temporary crises, and our abundance of food eventually is taken for granted, the margin of safety that separates what is too much and not enough is less than it may appear to the layman. Since 1930, production of agricultural products, with the exception of a few years, has not exceeded U.S. needs by more than 6%. (Handbook of Agricultural Charts, 1977). It is important to note that corn production has averaged less than 2% and wheat has averaged less than 1% in excess of U.S. needs since 1969 (Agricultural Statistics, 1981).

It is the research in plant productivity and protection that "sustains food and fiber production" above the break-even point and must do so into the future.

THE BROADER REMIFICATIONS OF PLANT PRODUCTIVITY RESEARCH

Increasing Demand for Food

"Over the past decade, world population has increased at a rate of 1.8% annually. If global population continues to increase at this rate, food and fiber production will have to double during the next 10 years to keep pace with demand," according to The Future Needs for Agricultural Products and Resources (Issue Papers), ARS Needs Assessment Committee, May 1982, transmitted under memo of May 26, 1982, from Essex E. Finney to the Deputy Administrator of ARS for the National Program Staff, and to officials in ERS and SECO.

"The growth in U.S. agricultural productivity over the past 50 years has been unparalleled in history. Notwithstanding the significant accomplishments of the past, difficult problems remain to be addressed. Some national leaders have expressed concern about the long-term prospects for meeting future global food and fiber needs. The critical areas are: increasing world population; declining land base; availability of water; energy shortages; plateauing yields; losses in agriculture; potential environmental concerns; agricultural export demand; and technological growth.

"One of the major concerns in crop production is that yields have tended to peak and flatten out in the last decade. A time trend analysis of the historical yield data from 1950 to 1979 on 13 crops indicated that most crops show a decline in rate of yearly yield increases (O'Brien et al. 1982, Tables 1 and 2).

"Reasons for the apparent decline in the rate of yield increases is not obvious for most crops. Weather, especially precipitation, plays an influential role on crop production as does soil fertility, pests, and the genetic potential of the crop. However, it is not known to what extent these and other factors, individually or through interactions, impact on yield.

"Projections to the year 2050 suggest that the rest of the world will be dependant on imports from the U.S. Foreign dependance will have increased from the present 6% in 1980 to 11% by 2000, and 18% by 2050. This would require about a 2% gain in productivity each year to meet both domestic and foreign needs.

"With increasing demand for U.S. agricultural products in the future and a finite U.S. agricultural land base, expansion of agriculture's capacity to produce becomes almost totally dependant on gains in productivity beyond the year 2000. This means that yields per acre for certain crops would have to increase significantly. For example, corn yields would have to be raised from the present 109 bushels per acre to 275-340 per acre by 2000, and 385-575 bushels per acre by 2050." Similar higher yield increases will also be required for wheat, rice, cotton, and soybeans. (O'Brien et al. 1982, Table 12). These kinds of increases certainly cannot be attained by reducing plant productivity and protection research.

Table 2. Yield Equivalents of Projected Productivity Levels (O'Brien et al. 1982)

Item	1980	1990	2000	2025	2050
Wheat (bu./acre)					
High Demand	34	39	45	67	91
Low Demand	34	36	41	60	72
Corn (bu./acre)					
High Demand	103	130	168	339	577
Low Demand	103	115	144	277	387
Rice (cwt./acre)					
High Demand	4,595	5,305	6,220	9,595	13,415
Low Demand	4,595	4,900	6,630	8,475	10,470
Cotton (lb./acre)					
High Demand	505	525	545	610	665
Low Demand	505	515	535	590	620
Soybean (bu./acre)					
High Demand	30	39	52	112	202
Low Demand	30	34	43	89	130

Plant Productivity, Plant Protection and Soil Conservation Research

The 1982 ARS Senior Staff Conference, Ideas on Research Priorities from Cooperators, strongly supported need for crop production and crop protection research.

One example illustrating a coordinated attack on a soil conservation problem that includes both basic and applied research of many disciplines of plant productivity and protection research is that of Aldenstadt et al. (1982). This was a model for conducting multidisciplinary crop production and soil conservation research. The research program is being conducted in the Pacific Northwest under the title of Solutions to Environmental and Economic Problems (STEEP). "The STEEP research program, to continue for 15 years, has directed the work of 55 scientists in ARS and the agricultural experiment stations of Washington, Oregon, and Idaho toward a solution of the erosion problem in the Pacific Northwest. The USDA special grant to the three universities and an appropriation to ARS which, since 1976, has provided annual funding for the research, and resulted in long-term multidisciplinary research across state boundaries. Results from the STEEP program have shown that significant reduction in soil loss occurs when crops are grown without tillage or with minimum tillage and have identified some of the factors responsible for decreased yields that are associated with these practices."

Considerable effort was devoted to the development of weed control systems to support development of no-tillage and reduced tillage technology for production of cereals and grain legumes. These practices reduced soil erosion but crop yields are often less than with conventional tillage planting. The reason for this was not fully understood. Crop residues on the soil surface, change in water relations, temperature of the soil, and toxins from crop residues are all important. Engineers solved the "high crown set" problem by designing no-till planting equipment that removes straw and chaff from seed row and other special equipment. The potential for breeding special varieties to be used for minimum tillage was demonstrated.

Early seeding has long been recognized as a practical way to prevent erosion of fall-sown wheat under summer fallow system. However, there are several problems associated with early seeding, such as weeds, diseases, insects, poor stand establishment, excessive plant growth, and cold and water stress. Results indicate that plant breeding can take care of numerous disease problems and adequate winterhardiness. Plant pathologists are needed to deal with disease problems that affect stand establishment. The barley yellow dwarf virus causes serious losses in wheat, oats, and barley, and the predominant strains are transmitted by the bird cherry-oat aphid, the greenbug, and the English grain aphid. The expanded use of herbicides to control weeds on untilled fallow ground may result in herbicide-disease interactions.

The development of conservation tillage systems required new research on combinations of herbicides and tillage for weed control. Reduced tillage increased incidence of wild oat, downy brome, and broadleaf weeds in crops seeded after the fallow season. The conservation of moisture by new weed control methods and reduced tillage resulted in increased yields and a combined net benefit of $62 per hectare. Agricultural economists have studied both the short and long-time effects of using erosion control practices and rural sociologists have studied effects of absentee landlords on rate of adoption of the new practices.

The above brief description of STEEP illustrates the need for plant breeders, plant pathologists, entomologists, weed scientists, agricultural engineers, economists, and rural sociologists in addition to soil scientists in solving the new problems that arise in developing new minimum tillage or other soil-conserving methods. Or, in fact, of dealing with any new technology resulting from basic research. ARS plant protection scientists are deeply involved in these kinds of research projects. The elimination of 40% of such scientists will result in a qualitative loss in experience as well as about 40% less research that is useful to growers.

Basic and Applied Research, A Continuum

Every basic discovery requires a many fold increase in subsequent research in the area of plant productivity to bring it to a point of potential utility at which time industry can carry out further developments. Furthermore, the adoption of new technology, including what industry contributes, changes the crop ecology and requires further research in the area of plant productivity to make the adjustments needed by growers to finally make full utility of the new knowledge from basic research.

This process is a continuum and has been throughout the history of U.S. agricultural research. It is a procedure that is constantly challenged as unnecessary; not in the public interest. But if we were to bare the secret of why U.S. agriculture is the most productive, efficient, cost-effective industry in the world, it would be because we practice the concept that basic and applied research is a continuum. The cadre of scientists and the work done in plant productivity and protection is an indispensable resource in this continuum. We see a continuing need to modify germplasm and use biology of crop species and other technology to cope with shifts in plant diseases, insects, nematodes and new weeds that may develop as cropping practices are changed.

Genetic engineering is creating excitement among scientists because of the potential of bringing genes from other organisms or remotely related plants into plant species by cell-culturing techniques. There have been enough transfers of DNA to indicate the potential. However, after such transfers are made, the long, tedious research work required to combine the new traits into improved germplasm or varieties to benefit growers has just begun. There will be continuing urgent need for molecular biologists, geneticists and plant breeders to combine the new organism with other germplasm for practical improvement. Without taking these research steps the cell-culture improvements remain useless; they are without utility.

Agricultural Research Service researchers are well trained scientists who can participate at all levels of plant research. For instance, Glenn W. Burton, an ARS geneticist at Tifton, Ga., has published excellent research papers in genetics and cytogenetics. Early in his professional career he made crosses of different species, as well as crosses within the same species, of bermudagrass. From this research he selected an especially vigorous F_1 hybrid that was later named 'Coastal' bermudagrass.

Because this hybrid produced almost no seed, the Coastal selection, although much superior to common bermudagrass in yield, disease resistance, stoloniferous habit, and many other characters, was of no value because of the limiting technology that existed at the time. However, Burton could see great potential for the hybrid if only there were an efficient method of establishing it on farms. Because of his vision and willingness to overcome obstacles, he and his colleagues developed a method of wholesale harvesting of rhizomes and stolons, and for mechanically sprigging them into growers' pastures. Burton's work illustrates the ability of a geneticist to contribute to theoretical genetics, to do practical plant breeding, and to develop completely new practical solutions to problems in the field. Coastal bermudagrass is still the most widely used pasture grass in the South. In addition, his other hybrid bermudagrass selections are among the most prized and widely used ornamental turfgrasses around homes, commercial buildings, golf courses and greens. ARS should guard against disbanding these kinds of scientists that are essential in bridging the gap between "genetic engineering" and producing germplasm that combines all of the essential traits to improve the crops on growers' farms.

Private industrial companies only partially contribute to these areas and they are already in the areas where they can profit from the activity. Commercial seedsmen have a large number of plant breeders and geneticists for some crops but not for many others. Hybrid corn, in particular, provides opportunity for commercialization because growers must buy hybrid seed for each crop annually. However, self-fertilized crops such as the small grains provide only limited opportunity for commercialization. A grower may buy a few bushels of a new improved cereal variety and thereafter produce all of his own seed. Thus, commercial seedsmen have only a short time to recover the costs of producing a new variety. There is continuing need for a cadre of molecular biologists, geneticists and plant breeders in ARS and the State agricultural experiment stations to conduct scientific studies and to produce improved germplasm for the various crops.

INTEGRATION OF PLANT PRODUCTION AND PLANT PROTECTION RESEARCH

Plant protection research finds its utility only when it is integrated with plant productivity research. According to Hill (1983), conservation tillage is an example that offers promising integrated research avenues. The concepts have been around for 50 years but the ideal chemical tools for progress were not available. New herbicide concepts have become instrumental in no-till and reduced-tillage advances on more than 70 million acres annually. Nationwide, some experts estimate that 75% of our cropland could be in some form of conservation tillage system by year 2010. Herbicides are essential for success of these tillage systems. Also, new methods of controlling plant diseases, insects, and nematodes will need to be discovered. Industry does the synthesis and discovery of pesticide action. Multidisciplinary scientists and agricultural engineers contribute to solving problems that arise with widespread acceptance of these and other practices involved in minimum tillage on farms.

Chemical application technology, long a neglected stepchild, is generating a strong thrust (Hill, 1983). Research will be stimulated by farmers' economic needs for more efficient use of pesticides along with environmental protection aspects. To respond effectively, we need a closer alliance between agricultural engineers and plant protection scientists. The need for increased precision and accuracy in application technology is essential. Scientists must bring their thoughts and efforts together across disciplines to focus on the total pay-off for research. An interdisciplinary approach has been developing. It must be extended.

Safeguarding the environment is a part of plant protection research and also must be continued. Research at Beltsville, Md., such as monitoring for pesticides in run-off water and ground water; determining degradation rates and fate of pesticides in soil, water, plants and animals; and identifying metabolites and degradation products of pesticides, provide a wealth of knowledge useful in the safe management of pesticides. These kinds of essential research are included in the plant protection research area that is being drastically reduced.

NAPIAP - A SPECIAL NEED

Purpose

The purpose of The National Agricultural Pesticide Impact Assessment Program (NAPIAP) as stated in USDA Departmental Regulation 9500-2 is as follows:

> "Establishes a process for managing and coordinating USDA/State (Land Grant University, Extension and State Regulatory Agency) activities to develop information and analyze pesticide use and impacts of pesticide regulation on agricultural productivity, aggregate supply of agricultural products, product prices and environmental uses."

The actual functioning of the program has been to have NAPIAP, as a national coordinated group, assemble all the benefit data and use information from across the country for a pesticide that is under EPA's "Special Reviews", or for other reasons as they may arise. Depending upon need, there is direct input of State extension specialists, experiment station scientists, and scientists from the other agencies of NAPIAP which includes ARS, FS, ERS, SCS and FAS. Thus, NAPIAP prepares the full benefits assessment report for the benefit side of any risk/benefit evaluation initiated by EPA.

Budget

The de-emphasis or elimination of NAPIAP would have serious adverse impacts on agriculture and the agricultural community. Presently, the Extension Service, USDA, has proposed a 100% cut in the FY '84 budget for NAPIAP. It is possible that all agency heads managing NAPIAP are considering or have recommended reducing the funding available. This seems to be at complete cross-purposes with Departmental Regulation 9500-2, USDA Participation in a National Agricultural Pesticide Impact Assessment Program, signed by John R. Block, March 7, 1983. This regulation says in part:

> "The NAPIAP is essential because of the continuing need for effective and economical pest control in American Agriculture. The program is expected to continue for many years based on this need and the continued regulation of pesticide use. Flexibility in NAPIAP must be maintained to deal with changes in pest control technology as well as changes in EPA schedules and policy."

In addition to 100% cut in the FY '84 NAPIAP budget for Extension Service, the Agricultural Research Service was reduced about $250,000 in 1983, with no information yet for 1984. The FY '84 budget for the Economic Research Service (ERS), which has responsibility for assessing the economic impact of regulatory actions, will be reduced by about 50% from their original funding level. The FY '84 budget for the Cooperative State Research Service (CSRS) is also in question as to travel funds for scientists to participate in assessment meetings or to receive support to conduct data-gap research necessary to provide essential information for currently registered uses of pesticides. Lack of funding for data-gap research will also adversely impact minor use registrations on food, crops, ornamentals, livestock, forestry and regulatory quarantine programs. At present, information concerning the intentions of the Forest Service (FS) and the Animal and Plant Health Inspection Service (APHIS) are not known (See Appendix III).

During the period 1977-80, teams of USDA/State scientists prepared biological economic benefit assessment reports on all pesticides reviewed by EPA. The short-term economic impact on users of these pesticides for agricultural pest control (only 22 compounds), had their federally registered uses been canceled, would have exceeded $8 billion. The registration of these compounds remain in effect and available to growers today only because of the comprehensive and scientifically competent benefits assessment reports submitted by NAPIAP to EPA.

Cutting these programs will be devastating in that the Department of Agriculture could not fulfill its responsibilities to EPA's "Special Reviews" (previously the Rebutable Presumption Against Registration - RPAR). Growers need the expertise available in USDA and the cooperating State agricultural experiment stations to aid EPA in its regulatory deliberations.

Need To Continue

The Department's justification for the continuation of NAPIAP is put forward in Departmental Regulation 9500-2:

> "The NAPIAP is designed to provide the most accurate and objective data available for defining and evaluating the benefits and risks of selected pesticides having agricultural and/or forestry uses. This information is necessary to evaluate the effects of pesticide regulation and use on agricultural productivity as well as the quality and use of soil and water resources. Further, information is developed to determine the effectiveness of regulations and the opportunity to simplify or eliminate regulations. Some important aspects of the program include conducting research on exposure to pesticides and environmental fate as well as collecting accurate pesticide use information. Analyses and evaluations rely on existing information and on review of environmental and human health assessments by EPA. Because of data deficiencies and constantly changing pest control options and problems, a continuing research program of biological effectiveness, exposure and equipment improvement, economic data collection and analyses, and environmental risk and hazard assessment will be conducted by the USDA/States."

NACA agrees with the above statement of justification and considers it imperative that adequate and continuous funding should be provided.

RECOMMENDATION

We recommend that:

1. Additional appropriations should be requested from Congress to fully fund at expanded levels, plant productivity and protection research that was reduced in the 6-Year Implementation Plan. In any event, the reallocations of funds from plant production and plant protection research should not be made.
2. In the future, consultations between the Agricultural Research Service and the Agribusiness community should be initiated at an early stage in the ARS planning and budget-development process.
3. Funding should be maintained at the funding levels appropriated by Congress (Appendix III) for the National Agricultural Pesticide Impact Assessment Program (NAPIAP) for all agencies in the USDA.

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Appendix I

ARS Research Accomplishments
A selected list of Important ARS Research Accomplishments

Crop Protection Research

ARS and cooperating scientists, in 1944, discovered the selective weed control properties of 2,4-D. The annual benefits from the use of 2,4-D for weed control in small grains alone is $320 million. Benefits from the total annual use of this herbicide are about $1 billion.

ARS and cooperating scientists, in 1947, discovered selective pre-emergence chemical weed control. Annual benefits from the use of this technique by farmers are valued at more than $5 billion. These benefits recur each year and increase as the crop acreage treated with pre-emergence soil-applied herbicides increase.

Rope Wick Applicator reduced herbicide costs, reduced crop yield losses caused by weeds, and increased farm income. The Rope Wick Applicator, discovered by ARS scientists, was used to control weeds on 30 million acres in 1982. This device reduced herbicide and application costs $10 per acre for an annual savings of $300 million. Also, yield increases worth $700 million were achieved. Thus, the total savings to farmers and consumers from using this applicator for 1 year was $1 billion. These benefits will recur each year the applicator is used.

Improved weed control technology reduced tillage and crop yield losses caused by weeds and increased farm income. New weed control technology to reduce tillage and crop yield losses developed by ARS and cooperating scientists during the past five years has achieved a reduction in fuel requirements from 8 billion to 4 billion gallons per year and improved crop yields resulting in an annual savings of $4 billion to farmers. These savings were achieved primarily by the development of selective chemical methods of weed control which reduced tillage and mechanical horsepower requirements and reduced crop yield losses caused by weeds.

ARS scientists discover basis for safer and effective insecticides used today. The structure of the active chemicals in pyrethrum insecticide, extracted from pyrethrum flowers, was determined by ARS scientists between 1935 and 1947. This knowledge has allowed industry to synthesize pyrethroid insecticides which are increasing in use today because of increased environmental safety and effectiveness. Many previously effective insecticides are no longer useful because of potential environmental hazard or because of a build-up of insecticide resistance in some pest populations. The new pyrethroid insecticides are providing control of many destructive pests for which no other effective controls are available.

Development of radiation to provide sterile insects formed the basis for control and eradication of screwworm and other important insect pests. ARS scientists pioneered the use of inducing sexual sterility in insects using ionizing radiation. This technology was used to eradicate the screwworm from North America north of Central Mexico, and has been used to eradicate several infestations of tropical fruit flies from the Mainland U.S. It has been used to protect cotton production in California from invasion by the pink bollworm and it is available for use in the boll weevil eradication program. The value for eradication of the screwworm is estimated to have an annual value of $400 million.

Citrus blackfly controlled in Florida with parasites. The citrus blackfly became established in Florida in 1969. Based upon knowledge developed by ARS scientists in the 1930's, ARS scientists were quickly able to introduce effective parasites from Mexico. These parasites are so effective that the need for frequent and disruptive spray application on citrus was avoided and a $5 million/year regulatory program is not needed.

Crops resistant to insects, diseases, and nematodes provide safe, economic pest control. Farmers consider growing resistant varieties to be an ideal solution to insect, nematode, and disease problems. Availability of pest resistance in high-yielding adapted cultivars provides the basis of nearly all integrated pest management programs and often no other controls are needed. Because farmers use resistant varieties produced from resistant germplasm developed by ARS scientists, the need for pesticides has been reduced by more than 63 million pounds annually and many former devastating insect and disease problems have been solved.

Alfalfa weevil controlled by introduced parasites. The alfalfa weevil was accidentally introduced into the United States in the 1900's. All 27 million acres of alfalfa worth $8 billion each year is now infested by this pest. In 1957, parasites were introduced from Europe by ARS scientists. As a result of the introduction of these parasites, use of insecticides to control the alfalfa weevil has recently dropped as much as 94% in some areas. Benefits to agriculture from this introduction are in excess of $9 billion/year and the probabilities of insecticide contamination of dairy products and bee-kills have been greatly reduced.

Cereal leaf beetle reduced to minor pest status. Following discovery of the cereal leaf beetle causing serious damage to small grains in Michigan in 1962, the USDA/ARS, in cooperation with State Agricultural Experiment Stations of Michigan and Indiana, and with USDA/APHIS, launched a research program to develop effective controls. After 17 years, the Federal cereal leaf beetle research program has been terminated as parasites introduced from Europe by ARS scientists are effective and the beetle is now only a minor pest over most of its range.

Attractants serve as methods for detecting populations of the gypsy moth. While the gypsy moth caused losses estimated at $761 million in 1981, the losses would have been much greater if isolated infestations outside of the principal infested area had been allowed to develop. Since 1971 action agencies have utilized the sex pheromone discovered by ARS scientists to detect small isolated infestations outside the principal infested area. Early detection has allowed these populations to be eradicated; thus, markedly slowing down its spread. Gypsy moths presently infest only 20% of their potential range in the United States, but without control of these isolated populations, the gypsy moth would be widely distributed from coast to coast.

Soybean germplasm that is resistant to the soybean cyst nematode is the basis for control of this pest. The soybean cyst nematode is found in 22 states. ARS scientists and those of the North Carolina Agricultural Experiment Station identified germplasm that was resistant to the soybean cyst nematode. In 1982 the U.S. soybean industry released three new varieties that were resistant to the soybean cyst nematode. These varieties were grown on more than 9 million acres. Over a 5-year period, the yield loss prevented by these new varieties is worth more than $400 million. It cost approximately $1 million to develop this resistant variety.

A new cotton variety has been developed which is unattractive to insect pests. ARS scientists have found that wild cotton species do not have a chemical substance which attracts insects. They succeeded in transferring this characteristic into cultivated types of cotton. The new varieties which have been developed are less attractive to lygus bugs. This has reduced the amount and number of applications of chemical pesticides needed to control these insects. In 1982 a commercial variety developed by a private seed company was planted on more than 1.8 million acres, or 16 percent of the total cotton crop in the United States.

New disease-free tall fescue results in greater beef cattle gains and production. Tall fescue is grown on about 30 million acres in the United States. A disease of this grass produces a toxin that causes cattle to lose weight. ARS scientists in cooperation with State agricultural experiment station scientists have identified the disease and know how to produce disease-free seeds and plants. Cattle eating a new improved digestible disease-free variety will gain from 50-100 percent more than on Ky 31. This has the potential of being worth $60-120 million annually to the beef cattle industry.

Genetic engineering is used to develop cold hardy citrus germplasm. ARS scientists have successfully crossed a cold hardy citrus species with current commercial varieties. The new hybrid which has been produced looks like an orange, is edible, and is more cold hardy than available varieties. A cold hardy variety of citrus would extend the growing area and could prevent millions of dollars of loss due to severe frost in the citrus growing areas.

Improved soybean harvester reduces losses. ARS agricultural engineers developed the principles for an innovative soybean harvester that reduced soybean losses by 50 percent. Commercial soybean harvesters, which have been patterned after the basic engineering principles established by ARS, have resulted in an annual savings of $150 million for the U.S. soybean farmer.

Basic research results in inexpensive propagation of fruit crops. ARS scientists have developed plant tissue culture techniques which have led to the successful propagation of virus-free strawberries, blackberries, blueberries, and apples. This technique, which allows for rapid and inexpensive propagation of these crops, has the potential of expanding high density planting of tree fruits which will reduce the cost of production to the consumer. Over 100,000 virus-free strawberry plants can be obtained from a single plant of a new variety.

Hybrid sunflowers are a valuable export crop in the United States. In 1970, ARS scientists discovered ways to produce the first sunflower hybrids. They became available for commercial production in 1982. The best hybrids yielded 20 percent more than those previously available. In 1970 there were only 200,000 acres of sunflowers; in 1982 there were more than 5 million. The current U.S. sunflower crop is worth about $1.5 billion and about 87 percent of the crop is exported.

Dairy farmers are now using modern electronic techniques developed by ARS scientists to measure forage quality and to balance rations. An instrument that is linked to a computer now makes it possible to determine the quality of a forage sample in less than 2 minutes. This information makes it possible for the dairy farmer to tailor rations to the exact needs of the herd. The Extension Service and the ARS are cooperating to get this new technology out to farmers. In one state, Wisconsin, a mobile laboratory (van) that contains the equipment is taken directly to the farms. Farmer interest is high.

Plant growth and development processes are controlled by day length. Several years ago ARS scientists found that the length of day and night controlled flowering and other plant growth processes. Further pioneering research isolated phytochrome, the plant pigment that responds to light and controls plant growth processes. This basic knowledge has led plant physiologists and geneticists to develop improved germplasm populations, varieties, and management practices for a number of crops.

The first Rhizoctonia root-rot resistant sugarbeet germplasm has been released. This germplasm provides the first opportunity for the private sugarbeet breeders to incorporate resistance to this disease directly into the female parent of hybrids. This new germplasm has the potential for reducing sugarbeet disease losses which are estimated at more than $20 million annually.

Crop plants have been found that will grow in adverse soil environments. ARS scientists have found that certain enzymes systems in plant roots protect them from damage in highly acid or alkaline soils. This characteristic in corn, sorghum, small grains, and soybean is being used to develop new crops not only for the United States but also for South America. These crops can now be grown in areas where they could not be grown and require less lime or other soil conditioners of plant nutrients necessary for adequate growth.

Basic research on dioxins increases the safety of herbicide use. Basic research conducted in 1970-73 on the environmental chemistry of the highly toxic chlorinated dioxins has improved the safety of herbicide use by the American farmer. Pesticides contaminated with dioxins were identified. Subsequent research with these pesticides determined dioxin persistence in soils, translocation within plants, and contaminant levels in animals. These findings, and subsequent research on the dioxin exposure of American farmers from low level dioxin-containing herbicides, have provided an accurate assessment of the risks, or lack of risks, to the farm community. Thus, EPA can now regulate dioxin at levels that will assure the safe use of herbicides.

Appendix II

Partial Listing of Plant Protection Research Locations Where Research Might Be Reduced Or Lost (Decisions Have Not Been Made)

Research Area	Location	Reduction
Control of Weeds (2.4.6, 2.4.7, 2.4.8):		15 scientists
Forage crops, pastures, and rangeland	College Station, TX	
	Columbia, MO	
	Lincoln, NE	
	Logan, UT	
Aquatic and non-cropland sites	Ft. Lauderdale, FL	
Horticultural and field crops	Tifton, GA	
	Weslaco, TX	
	Urbana, IL	
	St. Paul, MN	
	Fargo, ND	
	Shafter, CA	
	Houma, LA	
	Stoneville, MS	
	Stuttgart, AR	
Agricultural Chemicals Technology (2.4.10):		16 scientists
In control of nematodes	Beltsville, MD	
New natural and synthetic plant growth regulating chemicals	Beltsville, MD	
Natural growth regulators	Wyndmoor, PA	
Herbicide and growth regulator information management	Frederick, MD	
Behavior, fate, and alteration of pesticides in plants	Fargo, ND	
Bioactive and toxic constituents of plants	Albany, CA	
Germination stimulants for witchweed	New Orleans, LA	
Environmental impact and crop injury herbicides	Stoneville, MS	
Control of Insect Pests (2.4.4, 2.4.5):		80 scientists
Cotton	College Station, TX	
	Brownsville, TX	
	State College, MS	
	Florence, SC	
	Raleigh, NC	
Soybeans	Beltsville, MD	
	Stoneville, MS	
Corn	Wooster, OH	
	Ankeny, IA	
Wheat	E. Lansing, MI	
Sorghum	Lincoln, NE	
	Stillwater, OK	
	Tifton, GA	
Rice	Crowley, LA	
Sugarcane	Houma, LA	
	Canal Point, FL	
Sugarbeets	Kimberly, ID	
Peanuts	Tifton, GA	
Citrus	Riverside, CA	
	Weslaco, TX	
	Miami, FL	
Apples, Peaches, etc.	Vincennes, IN	
	Byron, GA	
Vegetables	Riverside, CA	
	Wooster, OH	
Sunflowers	Fargo, ND	
	Bushland, TX	
Pecans	Byron, GA	
	Brownwood, TX	
Tobacco	Oxford, NC	

Appendix III

Funding for the National Agricultural Pesticide Impact Assessment Program (NAPIAP)

($000's)

Agency	1977	1978	1979	1980	1981	1982	1983
ARS	644a/	675	675	675	675	825b/	825
CSRS	2,257	2,257	2,257	2,257	2,257	2,516	2,069
Extension	911	911	1,911	1,911	1,981	1,995	1,861
ERS	720	870	870	729	860	845	845
FS	376	380	380	386	386	386	386
APHIS	482	484	484	- -	300	- -	- -
TOTAL	$5,390	$5,577	$6,577	$5,958	$6,459	$6,567	$5,986

a/ Supplemental appropriation ($1,020.00) in FY 1977. $376.00 was transferred to FS.

b/ Includes program increase of $150,000.

APPENDIX B

DEPARTMENTAL REGULATION	NUMBER: 9500-2
SUBJECT: USDA Participation in a National Agricultural Pesticide Impact Assessment Program	DATE: March 7, 1983 OPI: Agricultural Research Service

1 PURPOSE

This regulation establishes a process for managing and coordinating USDA/State (Land Grant University, Extension and State Regulatory Agency) activities to develop information and analyze pesticide use and impacts of pesticide regulations on agricultural productivity, aggregate supply of agricultural products, product prices, and environmental issues.

2 CANCELLATION

This regulation supersedes Secretary's Memorandum 9500-1, December 2, 1981.

3 POLICY

Pesticides are essential to meet the Nation's needs for food, natural fibers and wood products, to protect human health and manage natural resources and to carry out regulatory responsibilities. Chemical pesticides must be used wisely, safely, and in concert with other effective commodity protection practices. Also, they must be used only within limits consistent with the maintenance of human health, food safety, and environmental quality. It is, therefore, the policy of the United States Department of Agriculture to facilitate informed decisions on pesticides that promote and protect agricultural productivity and benefit humans now and in the future without causing unreasonable adverse effects.

4 ABBREVIATIONS

APHIS	-	Animal and Plant Health Inspection Service
ARS	-	Agricultural Research Service
CSRS	-	Cooperative State Research Service
ECOP	-	Extension Committee on Organization and Policy
EPA	-	Environmental Protection Agency
ERS	-	Economic Research Service
ES	-	Extension Service
ESCOP	-	Experiment Station Committee on Organization and Policy
FAS	-	Foreign Agricultural Service
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
FS	-	Forest Service
NAPIAP	-	National Agricultural Pesticide Impact Assessment Program
OGC	-	Office of General Counsel
SCS	-	Soil Conservation Service
TAG	-	Technical Advisory Group
USDA	-	United States Department of Agriculture

5 BACKGROUND

Agriculture is confronted with important issues on the use of pesticides and pest control practices. The EPA must by law review all existing pesticide registrations to determine whether such registrations should be reregistered, modified, or cancelled. EPA, as required by FIFRA, as amended, has established procedures to provide for detailed evaluation of all pesticides, including the risks and benefits from use. Under FIFRA and the Memorandum of Understanding with the EPA, the USDA has responsibilities for contributing to the EPA decisionmaking process on pesticide regulation. Valid scientific information, objective analyses and interpretations concerning benefits and risks of pesticides are required to meet these responsibilities.

6 PROGRAM

In the implementation of this policy on pesticides, the Department participates in a coordinated USDA/State National Agricultural Pesticide Impact Assessment Program. The NAPIAP is designed to provide the most accurate and objective data available for defining and evaluating the benefits and risks of selected pesticides having agricultural and/or forestry uses. This information is necessary to evaluate the effects of pesticide regulation and use on agricultural productivity as well as the quality and use of soil and water resources. Further, information is developed to determine the effectiveness of regulations and the opportunity to simplify or eliminate regulations. Some important aspects of the program include conducting research on exposure to pesticides and environmental fate as well as collecting accurate pesticide use information. Analyses and evaluations rely on existing information and on review of environmental and human health assessments by EPA. Because of data deficiencies and constantly changing pest control options and problems, a continuing research program of biological effectiveness, exposure and equipment improvement, economic data collection and analyses, and environmental risk and hazard assessment will be conducted by the USDA/States.

7 ORGANIZATION

A Steering Committee for USDA/State participation in NAPIAP is hereby reestablished, and will report to the Executive Committee of the Research and Education Committee of the Secretary's Policy and Coordination Council. Agency heads or their designated representatives from APHIS, ARS, CSRS, ERS, ES, FAS, FS, OG´, and SCS, representatives from ECOP and ESCOP, as well as the Executive Secretary, will be members. The Steering Committee will be served by a TAG composed of representatives named by member agencies.

8 COMMITTEE CHAIRMANSHIP DESIGNATIONS

The Chairman of the Steering Committee will be selected by the Steering Committee from among its membership and may be rotated among members as appropriate. On an annual basis recommendations for Steering Committee chairmanship will be forwarded for concurrence to the Chairman of the Research and Education Committee.

The TAG will be coordinated and chaired by the Department's Pesticide Assessment Coordinator. The Steering Committee may appoint ad hoc work groups as necessary to carry out special assignments.

9 RESPONSIBILITIES

a The Steering Committee will:

(1) make all policy decisions concerning the organization and functioning of NAPIAP;

(2) address all policy issues on pesticides including approval of assessment reports and USDA's responses to EPA's proposed pesticide regulatory actions pursuant to section 6 of FIFRA;

(3) advise the Assistant Secretaries, Under Secretaries, and the Secretary as is necessary on issues that warrant their concern, including budget issues;

(4) provide that appropriate cooperative working relationships continue to be maintained within the Department and between the Department and the State Agricultural Experiment Stations, State Extension Services, agricultural components of State governments, EPA and other concerned organizations;

(5) provide resources for conducting detailed assessments of specific pesticides and commodities, concur in the five year program plan and mutually decide on commitments required by each participating agency to implement those plans.

b The TAG will:

(1) provide for the day-to-day management and coordination of the NAPIAP;

(2) review all assessment reports and other program outputs, EPA position documents, proposed registration and policy documents, and make policy recommendations to the Steering Committee;

(3) determine which pesticides, pesticide uses and commodities require assessment by the Department;

(4) develop, and revise as necessary, a five year program plan and identify associated resource requirements;

(5) prepare draft responses to EPA proposed actions;

(6) facilitate implementation and coordination of assessment activities concerning specific pesticides and commodities.

c The Pesticide Assessment Coordinator will:

(1) as Executive Secretary of the Steering Committee, assure that policy issues are brought before the Committee for resolution;

(2) as Chairman of the TAG provide the forum for coordinating the day-to-day management of the NAPIAP program;

(3) with the assistance of the TAG, provide for the approval of assessment reports and preparation of Departmental responses to EPA proposed pesticide regulatory actions pursuant to section 6 of FIFRA;

(4) with consensus of the TAG, respond on behalf of the Department to EPA proposed regulations pursuant to Section 25 of FIFRA;

(5) serve as principal contact between USDA and EPA on matters related to NAPIAP and other EPA regulatory actions of a Departmental nature;

(6) keep NAPIAP components fully informed of regulatory activity relating to NAPIAP responsibility.

d Regional Coordinators will:

(1) coordinate NAPIAP research efforts in the States within their respective regions;

(2) function as part of the agricultural network, working with States in their region to furnish pesticide data and to provide comments on regulatory issues as requested by TAG.

e State Liaison Representatives will:

(1) serve as the NAPIAP representative of their State to express State and local concerns on pesticide issues and research needs;

(2) provide for the furnishing of available biological, environmental, pesticide use, and economic data requested by the TAG and/or Steering Committee;

(3) provide a link in facilitating the flow of information among the USDA NAPIAP components and State pesticide interests.

10 DURATION

The NAPIAP requires a substantial amount of resources and it is important that the best possible use be made of currently available information, funds and personnel. The NAPIAP is essential because of the continuing need for effective and economical pest control in American agriculture. The program is expected to continue for many years based on this need and the continued regulation of pesticide use. Flexibility in the NAPIAP must be maintained to deal with changes in pest control technology as well as changes in EPA schedules and policy.

STATEMENT OF DONALD J. SCHRICKEL, CHAIRMAN, THE MILLING OATS IMPROVEMENT ASSOCIATION

The Milling Oats Improvement Association consists of companies and individuals who are interested in oats research and the production of oats for milling into human food products.

Our country currently has temporary surpluses of some grains, but this is not the case with oats. In fact, oats are an excellent alternative crop to some of the surplus grains. There is strong demand for oats seed this season since it is a good cover crop for acres diverted from the surplus crops. Of course, these acres will not be harvested for grain, and thus will not increase the availability of oats in the market place.

The major need in order to preserve this nutritious crop is the constant development of better varieties of oats, resistant to the new diseases that occur in Nature and capable of producing high yields in order to improve net return per acre for growers. The most important feature of varietal development is the availability of diverse genetic material, which is assured by a well-maintained collection of germplasm. Oats are a part of the National Germplasm System. Our Association strongly supports the National Germplasm System administered by the Agricultural Research Service of the U.S. Department of Agriculture. The total amount budgeted for the Plant Germplasm Program for F'84 is $13.8 million, which is unchanged from F'83 spending. Our Association respectfully requests the amount appropriated for F'84 be a minimum of $13.8 million.

Research functions of ARS that do not receive much attention, but which merit strong support, are the vital scientific service laboratories and basic plant research locations. Some of these functions are:

1. The Oats Quality Lab., Madison, Wisconsin
2. Yellow Dwarf Virus Research, Champaign, Illinois
3. Cereal Rust Research, St. Paul, Minnesota and Ames, Iowa
4. Cereal Germplasm Reproduction and Maintenance, Aberdeen, Idaho

These functions are vital to support the State breeders who develop new varieties. We in industry also contribute to State breeding programs by offering graduate assistantships to advanced students of genetics, plant breeding, and plant pathology.

The Nation's successful and proven agricultural research system needs continued support at the federal level, in this instance in the form of an adequately-funded Agricultural Research Service. Our Association believes that emphasis on basic agricultural research is needed, but not at the expense of proven applied research that improves profits for producers.

The Milling Oats Improvement Association wishes to thank this Sub-committee and its Chairman for continued support of agricultural research.

STATEMENT OF ROBERT F. LEDERER, EXECUTIVE VICE PRESIDENT, AMERICAN ASSOCIATION OF NURSERYMEN, INC.

The American Association of Nurserymen with offices at 230 Southern Building, Washington, D.C., is a trade association with more than 3,200 firms involved in the sale, planting, and production of environmental nursery plants, fruit trees and vines, small fruits, trees and shrubs for orchardists, ranchers, farmers and homeowners. Our production is agriculture, therefore, our interest in the budget request currently before the committee.

Nursery plants are living organisms and require care and protection beginning in the producing nursery farm and continuing throughout the marketing channel. This care and protection is provided until the plant is placed in the consumer's orchard, garden, forest or landscape site. The need for agricultural expertise to properly care for the plant then becomes the responsibility of the ultimate purchaser. This, among all other branches of agriculture, is most in the public eye. Products of the nursery portion of agriculture can be seen everywhere . . . on city streets, in yards, parks, around buildings and inside homes and offices.

Nursery farms traditionally have been family owned and operated. Many of these farms are now in third or fourth generation operation. Over ninety percent of our member firms are small businesses. Nursery farmers have neither asked nor received crop subsidies or marketing orders from the federal government. Notwithstanding, industry sales volume at retail has grown to $5.1 billion. This gets to the point of my letter.

For sometime now we have received strong signals that the Agricultural Research Service (ARS) in the Department of Agriculture plans to close down the Nursery Crops Research Laboratory in Delaware, Ohio and reduce significantly the scope of nursery-related research at the ARS laboratories in Mandan, North Dakota; Corvallis, Oregon; and Tifton, Georgia.

These rumors, although unconfirmed, are a matter of grave concern to our members. The laboratories in question provide essential applied research for our industry. Closing of the Delaware Laboratory and reducing research at these facilities would eliminate nearly all horticultural research by the Agricultural Research Service. Since virtually all of our firms lack the size and resources to conduct research themselves, these actions would be extremely detrimental to our industry.

Our concern has also resulted in the enclosed document (The Agricultural Research Service and Nursery Farming) which details the research accomplishments and needs of the nursery portion of agriculture. We ask that this be reviewed and its contents seriously considered when decisions are made regarding any efforts to reduce Agricultural Research Service funding for plant productivity and research programs related to horticultural crops in general and nursery farm crops specifically.

As was expressed in our testimony last year, we continue to be concerned with the proposed reduction in funding for the Animal and Plant Health Inspection Service (APHIS) programs for gypsy moth, imported fire ant and witchweed. As explained in the enclosed, nursery plants are regulated commodities under all of these quarantines. In the case of imported fire ant and witchweed, nursery plants are not attacked by these pests. Even in the case of gypsy moth, nursery farmers have little trouble preventing defoliation of their plants by this pest. However, they do have great difficulty in preventing gypsy moth larvae from moving into nurseries from adjacent properties, continuing their life cycle and depositing egg masses on the nursery plants. Unfortunately, following the gypsy moth population explosion beginning in 1980, a few cases of larvae or egg masses have been found on nursery plants in commerce. In 1982 two truck loads of nursery plants were burned when found infested.

Inasmuch as nursery farmers have borne more than their share of the responsibility of preventing the spread of these three quarantined pests and others, the nursery industry requests that those who are protected share in the cost of that protection. Since this protection is for the non-infested areas of the country, the costs should be borne nationally and not made the sole responsbility of the producing nursery farmer and his state.

We therefore recommend the following:

(1) The 1984 budget for gypsy moth be increased to $5,000,000, and that Congress authorize APHIS to regulate the movement of recreational vehicles and lawn and garden furniture from the infested areas to non-infested areas of the country;

(2) The imported fire ant program should be funded federally and at a level which will enable the U.S. Department of Agriculture and the state departments of agriculture to

jointly eliminate further spread of this pest and develop more effective means of controlling the pests in those areas of the country currently infested. Further, additional research should be funded by the ARS to provide field-producing nursery farmers with a means of producing nursery plants that will be certifiable as free of imported fire ant so that thore plants may be shipped to other areas of the country for commerical food production, home garden production, and environmental landscape uses;

(3) The witchweed item in the APHIS budget be maintained in 1984 at the 4,723,000 level.

As is noted in the enclosed, the pesticide needs of the nursery industry to meet quarantines and regulations have not yet been fulfilled. These quarantines and regulations have been established to prevent the artificial spread of hazardous insects and diseases which might live on nursery plants. To ensure that the plants produced in nurseries are free of these pests, continuance of the Inter-Regional-4 (IR-4) research program to obtain data to support expansion of existing pesticide registrations for additional crops or pests remains a top priority. The responsibility for IR-4 is shared by the Cooperative State Research Service and ARS. We request this vital activity be funded at the same level in 1984.

We view unfavorably the elimination of funding for the National Agricultural Pesticide Impact Assessment Program (NAPIAP). The present ARS staff, in conjunction with Cooperative State Research Service and State Agricultural Experiment Station scientists, have done an outstanding job of credibly and factually documenting the benefit side of agricultural chemicals. Secretary Block earlier this month issued a Department regulation affirming the essentiality of this program in supporting the availability of agricultural chemicals for production agriculture. We would respectfully request favorable consideration for continued funding of NAPIAP, according to the Secretary's Department regulation.

We wish to thank the Congress for continuing to endorse a balanced funding of local, state and federal interests, personnel, program development, and administration, by appropriating an increase of nearly 6% in the State Agricultural Experiment Station portion of the 1983 budget. This level will at least maintain the research capacity of the nation's agricultural experiment stations and continue the effectiveness of the cooperative federal, state and local system. However, for 1984, we support a 7% increase in the administration budget for the State Agricultural Experiment Stations. This will at least help cover salary increases of state employees and other rising operating costs of research.

Likewise, we support a 7% increase in the Smith-Lever portion of the Extension Service portion of the 1984 budget. All the research in the world would not do anyone any good unless it was communicated to the intended user — this being the primary role of the extension service. We thus urge the committee to provide adequate funding for extension formula programs to offset increasing costs and provide for new initiatives.

Although the enclosed document does not specifically refer to the recently developed Agricultural Research Service Program plan (USDA Misc. Pub. No. 1429) and its companion 6-Year Implementation Plan, we must do so at this time. The Implementation Plan proposes a $29 million reduction in the area of plant productivity and production research. Of this reduction, $18.1 million would adversly affect horticultural crops — including research on nursery farming programs. What makes this serious matter even worse is that the budget is based on the zero growth concept, thus the loss would be maintained through 1990.

These reductions impact most severly on horticultural crops, which when combined, comprise the fourth largest commodity classified as agriculture. In addition, nursery farm products are a significant part of that overall horticultural production, thus our concern over the changes proposed in the 6-Year Plan and the adverse implications that this plan holds for our agricultural system nationally. This 6-year plan also supports our concern, expressed earlier in this letter, over the possible closing of the Delaware Ohio Nursery Crops Research Laboratory and the elimination of nursery-related ARS programs.

Over the years, the Congress has supported the laboratories in question by providing necessary funding after holding public hearings. Certainly the closing or reduction in scope of any of the laboratories should not occur without benefit of Congressional hearings and approval. We feel strongly that essential research should not be denied the nursery industry by administrative fiat. Under the circumstances, we urge the committee to seriously consider our concerns and review in-depth the ARS proposed 6-Year Implementation Plan and its Program Plan.

We also respectfully request that this letter, and support document if possible, be included in the record of hearing.

INTRODUCTION

The agricultural community in the United States is composed of many diverse elements. Among these is the nursery industry, which is an important and expanding segment of that community.

Nursery production and marketing includes, but is not limited to:

a. Fruit and nut trees, berry plants and grapevines used by both commercial growers and home gardeners.

b. Trees, shrubs, vines and groundcover plants used for landscape and environmental improvement about our homes, schools, churches, parks, commercial buildings and highways.

c. Seedlings for production of Christmas trees and the reforestation of private woodlands.

d. Trees and plants for windbreak and soil conservation plantings.

While some firms specialize in producing plants, others specilize in landscaping, retail or garden center operations, some in mailorder, and many combine two or more of these activities as departments. Many of the landscape garden center and mailorder firms produce a portion of the plants they sell, with the remainder being bought from producing nurseries.

Nursery plants are living organisms and require care and protection beginning in the producing nursery and continuing throughout the marketing channel. This care and protection is provided until the plant is planted in the customer's orchard, garden, forest or landscape site. The need for agricultural expertise to care for and properly maintain the plant then becomes the responsibility of the ultimate purchaset. The nursery industry, among all other branches of agriculture, is most in the public eye. Products of the nursery portion of agriculture can be seen everywhere — on city streets, in yards, parks, around buildings and inside homes and offices.

One of several unique features of a nursery farm is the significant number of varieties which it produces. A single producing nursery may grow as many as 1000-1200 different kinds of plants. (There are approximately 3000 varieties of plants commonly found in production and retail nurseries.) Some of these plants remain under the care of the nursery farmer for as many as 15 years before being marketed.

In analyzing nursery production statistics reported by the Horticultural Specialties Census, we find that commercial nursery production acreage increased from 137,000 acres in 1959 to around 156,000 acres in 1979, and remains at about that same level. The number of commercial producing nurseries, estimated to be in excess of 5,000 in the U.S., is decreasing while the average acreage and production per nursery is increasing. Improved scientific technology developed through research has enabled the industry to increase the number of saleable plants produced per acre. In addition, production of plants in containers has increased dramatically.

It should be emphasized that nursery grown products are a significant part of overall horticultural production which, according to United States Department of Agriculture statistics, is estimated to have a farm value of more than $15 billion. Thus horticulture is the fourth largest commodity classified as agriculture. In 1982 the nursery industry produced plants with an estimated $1.7 billion in wholesale value.

The landscape portion of the nursery industry is comprised of firms offering such services as landscape design, planting and maintenance. While little data is available concerning this portion of the industry, we estimate that there are in excess of 15,000 firms primarily involved in landscape activities. The total value of plant sales by landscape firms is estimated to be in excess of $2 billion. As previously mentioned, many of these firms produce a portion of the plants used in their landscape planting activities. This segment continues to grow at a rapid pace because of increased emphasis on environmental improvement.

The number of garden centers or retail nurseries is even more difficult to estimate. The 1972 Census of Business reported in excess of 8000 retail nurseries, lawn and garden supply stores, the major sales of which were in plants and plant supplies. We estimate that there were at that time an additional 10,000 to 12,000 firms selling plants and plant supplies at retail whose major item of sales was some other merchandise line.

Currently, we estimate that there are more than 20,000 retail firms offering plants and plant supplies on a year-round basis. We also estimate that these year-round garden center sales total $6.2 billion in the United States. Of this amount, approximately half ($3.1 billion) is in plant sales.

When we include the services of other horticultural and arboricultural firms, as well as the sale of products of related industries - e.g. pesticides, fertilizers, outdoor power equipment, gardening equipment, etc., the allied landscape industries sell over $16 billion annually in products and services. They also employ over half-a-million persons.

Since the environmental movement began in the late 1960's, people have become increasingly concerned about protecting, preserving and improving our surroundings. Using trees and plants to prevent erosion of soil, as windbreaks, to block unwanted sights and sounds, to remove pollutants from the air and conserve energy are just a few examples of their wide application. These functional uses of plants, coupled with the normal satisfaction derived from a well-landscape residence or business, have doubled the demand for our product in the past 15 years. We expect this growth to continue as the beneficial aspects of our products of agriculture become even more widely known, as families spend more time at home, and many turn to gardening as a hobby.

Traditionally, nursery farms have been family owned and operated. Many are now in third or fourth generation ownership. Recently, because of the increased potential market for nursery plants, a few large corporations have entered the industry. These initial entries have been made by acquisition of existing family nurseries. In viturally all instances, former owners have been retained to manage the firm.

In short, we can say that the nursery portion of agriculture is a viable, growing segment making a significant contribution to our economy. Even more important is the fact that our production and sales have continued to increase and, in our judgment, with the help of a national advertising program, demand for our products will increase at a faster pace than we can increase production. In addition, of all segments of agriculture, the nursery industry is one of the few which has neither sought, nor benefited from government subsidies. No federal funds have been expended for crop supports, marketing orders, etc. As such, the federal government's contribution of minimal research, we feel is a reasonable expenditure of federal governments funds.

As a result of a growing marketplace, especially in light of considerable interest by many nursery firms in international trade, the nursery industry's need for continued, expanded research is more critical than ever. A question we often hear is "why can't the nursery industry conduct its own research?" Many nursery farmers simply do not have the financial resources to perform the type of research as outlined later in this paper. Nor do they staff personnel with the necessary skills to do this kind of research. In addition, larger firms and corporations who may have the financial means and scientifically trained staff to perform the research would be reluctant to share their results because of propriety rights and their resulting competitive edge in the market place.

PLANT QUARANTINES

Nursery plants are the only agricutural products transported with soil about the roots, thus creating a greater possibility of moving soilborne pests or diseases than other agricultural commodities. Until 1919, and adoption of

Quarantine 37, the United States did not have an import quarantine. Many of our most serious crop and forestry pests were introduced prior to this time. With the promulgation of Quarantine 37, the United States began to protect itself from the possible introduction of additional agricultural pests. Federal domestic and supporting state quarantines were also subsequently established to prevent the artificial or long range spread of pests.

In many instances, pests controlled by quarantine are not deleterious to nursery crops. However, nurserymen are restricted in marketing their crops to prevent the spread of a pest to other crops and forest lands. Gypsy moth, Mexican fruit fly, European corn borer, Japanese beetle, imported fire ant and witchweed are examples of pests which do little or no damage to nursery crops under production, but which seriously restrict transport of these crops in both domestic and foreign trade.

We wish to emphasize that responsibility for preventing long distance or artificial spread of hazardous agricultural plant pests has not been, nor should it be that of infested property owners and their state. The continuing reduction of the Federal budget on quarantine matters of this type is forcing owners of infested property and their states to bear the majority of the burden, and in some cases the entire burden, to prevent the pest from spreading to other sections of the country and other agricultural crops.

For nursery farmers, the prevention of pests spreading is an unjust burden. These pests are not troublesome to nursery crops under production. In the case of gypsy moth for example, the sole responsibility to avoid its spread is a very bitter pill to swallow when nursery crops are not the principal means of long distance artificial spread of this pest. Outdoor household furniture and recreational vehicles are the principal means of gypsy moth spreading from the northeast U.S. to Oklahoma, Nebraska, California, Oregon, and Washington, to name a few. Yet outdoor household furniture and recreational vehicles remain unregulated.

Nurserymen have learned to maintain their plants free of quarantine pests for the privilege of shipping them in interstate commerce. But, since the early 1970's, new restrictions on the use of pesticides have made it increasingly difficult and even more expensive for nurserymen to maintain their plants in pest-free, certifiable condition. We continually urge the Department of Agriculture to give greater attention to nursery industry pesticides needed for quarantine and regulatory purposes. For example, with the phase-out of chlorinated hydrocarbons, agricultural research has failed to provide alternative pesticides to allow our branch of farming to satisfy quarantine requirements in a practical way.

The nursery farmer's problem of the lack of availability of registered pesticides capable of providing control of insects, diseases and weeds required by state and federal quarantine and regulatory agencies has been intensified in recent years because of the separation of the regulatory function of the Animal and Plant Health Inspection Service from the same administrative unit as the former Agricultural Research Service. The problem has been further exacerbated with transfer of registration of pesticides from the Department of Agriculture to the Environmental Protection Agency. Adequate communication has not been maintained between these agencies, the Office of Management and Budget, and the State Departments of Agriculture. As a consequence, pesticide needs of the nursery industry to meet quarantines and regulations established to prevent artificial spread of hazardous insects and diseases are neither understood nor satisfied.

Nursery farmers, as strong supporters of conservation, are environmentally oriented, and are conscious of the need for careful use of pesticides. Nevertheless, they are denied pesticides which other segments of agriculture are permitted. We urge continued support of the Inter-Regional 4 (IR-4) program which is charged with responsibility for obtaining data to support extension of existing pesticide registrations to additional crops or pests. This program can be of inestimable assistance in this area, but has had only token budgetary increases since its inception. As a result, minor crops, including nursery plants, have been denied use of newer, more effective pesticides which are available for other crops.

Nurserymen believe that it is their responsbility, along with State and Federal Departments of Agriculture, to ensure that plants produced in nurseries are free of hazardous diseases and insects in order to move in commerce without exposing other segments of agriculture or the general public to the pests which might live on nursery plants. To do this, we need the cooperation and understanding of Congress, the U.S. Department of Agriculture, the State Departments of Agriculture, the Environmental Protection Agency and the Office of Management and Budget.

RESEARCH ACCOMPLISHMENTS

As we have mentioned, the nursery industry is a valuable, expanding and important segment of the agricultural economy. As such, this segment of agriculture deserves its share of consideration from the Office of Management and Budget in budget recommendations for the United States Department of Agriculture and the Agricultural Research Service in particular. While it is more difficult to assess the magnitude of the industry in terms of bushels per acre, acres planted, or tons of production, it can be assessed in terms of dollars (over $16 billion annually) contributed to the economy and in terms of the people involved (over half-a-million) directly and indirectly in nursery production, sales, service and in other allied industries. It is also important to realize that the industry is geared to serve the urban and suburban communities, where 80 percent of the country's population resides.

The impact of nursery farmers in the production and proper placement of plants in the landscape is far greater than the intangible, aesthetic values usually associated with these crops. Those values however are not inconsiderable and should not be overlooked or under rated. In 1980, there were 48.2 million owner-occupied single family dwellings in the United States. The average residential landscape today is valued at $11,000, based on the average home value of $74,200. This means that the economic value of the 48.2 million residential landscapes in the U.S. is over $500 billion. Needless to say, the enhancement of property values, aside from the economic worth of landscape plantings in both urban and rural communities, is substantial and real.

Agricultural Research Service (ARS) tree improvement programs have had a direct beneficial effect not only in the urban areas, but on many segments of agriculture as well. The research at the Northern Great Plains Laboratory that has resulted in the selection, testing, and production of windbreaks and shelterbelt trees planted in the Great Plains has had, and is having, a direct favorable impact on crop and animal production in these areas. When used as windbreaks, trees and shrubs significantly reduce wind erosion, a potentially serious problem on 70 million acres of crop and range land in the United States. Wind erosion damaged over 5 million acres of crop and range land annually during the period of 1936 to 1980. As of 1976, over 100,000 miles of field shelterbelts had been planted in the United States. The Soil Conservation Service estimates that an additional 250,000 miles are needed to provide adequate protection. Windbreaks also contribute to moisture conservation by controlling snow deposition, provide food and cover for wildlife, and conserve energy. It has been said that trees have made agriculture possible in the grasslands of the Great Plains.

Soil and water conservation efforts in preventing erosion of valuable top soil and contamination of water resources resulting from run-off can be greatly and favorably influenced by the selection and development of nursery farm crops including shrubs, trees and ground cover plants. Projects such as strip mine reclamation require the planting of adapted perennial plants to prevent land erosion and disfigurment of the land and as a means of producting valuable timber crops and making the land suitable for future crop production. Studies in tree improvement already underway at ARS laboratories in Corvallis, Oregon, Washington, D.C., and Delaware, Ohio may well contribute significantly to the betterment of the urban landscape, as well as aid in soil and water conservation.

Improved landscape shrubs and trees developed and tested in ARS programs at the National Arboretum and the Delaware Ohio Nursery Crops Labroatory, may better resist the stress of soil compaction, nutrient deficiencies, moisture extremes, and soil and air pollution. Such plants contribute to energy conservation by providing shade and cooling from the sun and protection from the effect of winter winds and storms. In addition, properly placed plants provide barriers to offensive and harmful noise as well as serving as umbrellas and sinks for injurious air pollutants. Important progress had already been made at ARS laboratories to better understand and solve the problems standing in the way of accomplishing these objectives.

Control of Dutch Elm Disease

Other specific ARS research accomplishments and their resultant benefits have been demonstrated. Dutch elm disease has been the most destructive and costly tree disease ever found in North America. It now occurs in 42 states and Canada and has resulted in the loss of millions of American and other susceptible elms at a cost of billions of dollars in trees lost, decreased property values and removal and replanting costs. Residential property values are estimated to decrease at the rate of $430 per tree lost. For a community with 1,000 elms, if only property depreciation and tree removal costs were included, the loss over a 15-year period would amount to $606,000 if no control was practiced. In contrast, the budget savings in control and disposal costs alone would amount to between $35,000 and $140,000 for a 1,000-tree community conducting a disease control program. Research at Delaware Ohio Nursery Crops Research Laboratory has made significant contributions to control of Dutch elm disease and consequently to savings in dollars and valuable landscape trees.

Fungicide control of Dutch elm disease has been investigated for many years but had not been successful because of the close interaction between the disease-causing fungus and the tree. Similarities in the biology of the two organisms, the fungus and tree, resulted in damage of the tree by treatments harmful to the fungus. Pioneering work at the Delaware Ohio Nursery Crops Research Laboratory with a new fungicide, benomyl, and the laboratory work in developing an injection technique for delivering the chemical into the tree, has resulted in the first and only effective system for chemical disease control. Modifications of this system are used commercially by tree service companies to minimize losses to Dutch elm disease.

The Nursery Crops Research Laboratory has been a national leader in a hybridization and selection program for new elms resistant to Dutch elm disease. Sources of genetic resistance to Dutch elm disease from Europe and Asia have been assembled at the Laboratory. Breeding experiments with these trees resulted in development and release for production by nursery farmers of the first Dutch elm disease-resistant elm produced by the U.S. Department of Agriculture. This tree, the 'Urban' elm, is now available for planting throughout the United States. Two generations of breeding and selection carried out since 1970 have resulted in clones with superiority in disease resistance, stress tolerance, and growth rate. Two new clones have also just been released and several more clones, including a promising American elm selection, are in the final stages of evaluation and should be released in the next two years.

The disease resistance, stress tolerance, and survival ability of these trees could result in a 40% reduction in replacement costs and a 30% reduction in maintenance costs over the average life of each tree sold. Yearly nursery sales of 300,000 of these trees at $20 each could result in savings of $2.4 million per year for tree removal and replacement costs and $1.8 million per year for maintenance expenditures.

Virology

Virology research at the Beltsville, Maryland florist and nursery crops laboratory has involved work on detection of virus diseases in rose. The work showed that the sensitive serological test procedure, referred to as ELISA, can be used to detect rose mosaic virus and apple mosaic virus in rose. These are the two most prevalent virus diseases in rose. The ELISA procedure has been adopted by Conard-Pyle Company in West Grove, Pennsylvania. This nursery has been an enthusiastic supporter of this work and has urged that the procedure be adopted to index roses in production for certified nuclear stock propagation by other rose growers in the country.

Plant Clone Identification

Since the concept of clonal identification or plant fingerprinting using a Scanning Electron Microscope (SEM) was proposed in 1975, accurate identification of 36 clones has been demonstrated for at least 7 species. A clone is a horticulturally desirable selection that is genetically unique and vegetatively propagated. Verification of plant authenticity is extremely important during nursery production, as well as protecting the general public from erroneous substitution. The Horticultural Research Institute has designated the Nursery Crops Research Laboratory as a Center of Excellence in Clonal Identification with SEM. Additional research is required to increase the data base on unresearched species, provide expertise in implementation of the technique and to maintain a repository of clonal identification information.

Pesticide Registration Clearance

Prior to 1977, the nursery industry expressed a need for safe and efficacious chemicals to control diseases and pests of nursery crops. The market potentials of candidate pesticides were insufficient to justify anticipated registration costs on the part of chemical producers. In response, federal state and industry personnel became involved in Interregional Project-4 (IR-4). To date 1,410 pesticide registrations have been obtained, while 1,685 priority needs have yet to be resolved. Many ARS laboratories including those at Corvallis, Oregon; Tifton, Georgia; Beltsville, Maryland and Delaware, Ohio have participated in this program cooperating with other federal and state personnel in prioritization of clearance requests, as well as conducting and obtaining clearances on over 300 projects. The IR-4 Project is an excellent example of a cooperative effort by government personnel with unique expertise responding to the needs of the nursery and pesticide industries. The registration of safe and efficacious pesticides directly benefits nursery farmers and ultimately the American consumer.

New and Improved Environmental Plants

The research program at the U.S. National Arboretum is extensive and includes the development of new and improved genetic lines of trees for diverse urban uses that combine favorable horticultural characteristics with resistance to pests and tolerance to environmental stress, including investigations on the genetics of graft compatibility, biochemical studies, cytological studies, provenance tests, and other methods of evaluation for superior types.

This program includes distribution and release of selected and superior cultivars of landscape trees, developing significant new cultivars of important nursery crops in which multiple resistance to pests is a prime objective combined with improved horticultural quality and improved tolerance to environmental stress. Cooperative arboretum/industry evaluation and increase programs are designed to insure prompt introduction to the commercial nursery industry.

Other National Arboretum research programs include developing improved breeding lines, populations, and cultivars of broadleaved evergreen shrubs, hardy herbaceous perennials, and selected deciduous nursery crops, combining improved horticultural characteristics with best resistance and stress tolerance. Also included are breeding compatibility relationships, genetic and cytological characteristics, and tissue culture techniques for rapid propagation.

Elm Phloem Necrosis

Elm phleom necrosis is the second leading killer of American elms in the world. This disease, because of its symptomology, had been attributed to a virus. Cooperative research by the Agricultural Research Service and U.S. Forest Service deomonstrated the causal agent to be a mycoplasma like organisim rathern than a virus. This discovery was important since mycoplasmas can be treated with antibiotics while viruses cannot. Once again, as with the control of Dutch elm disease, this ARS finding will contribute significantly to reducing American elm losses and consequently to saving considerable dollars as well as valuable landscape trees.

Leaf Scorch

Research at the Beltsville, Maryland florist and nursery crops laboratory, done cooperatively with the National Park Service, has shown that scorch in several shade tree species is caused by a pathogentic bacterium. That it is not a problem of air pollution and urban stress alone.

Best Genetic Seed Sources

Approximately 50% of the red maples and 85% of the blue spruce sold in the U.S. are of seedling origin (grown from seed rather than vegetatively propagated). Research at the Delaware Ohio Nursery Crops Research Laboratory has revealed wide genetic variation in both species in such economically and biologically valuable traits as growth rate, leaf or needle color, and cold hardiness. Other research on red maple has show certain progenies to be tolerant of air pollution, deicing salts, Verticillium wilt, and drought. With use of seed collection guidelines established at the Laboratory, nurserymen can now achieve growth rates of 1 2/3 times the growth rate of red maple seedlings grown from average seed and corresponding increases of 1 1/3 times for blue spruce. Use of this genetically superior material will decrease the time to grow and maintain these trees in nurseries, thereby decreasing costs for grower and consumer alike. The superior color, form, and stress tolerance found will also increase value of trees grown, resulting in savings of millions of dollars.

Soilborne Plant Diseases

Much of the work of the Horticultural Crops Research Laboratory at Corvallis, Oregon on soilborne fungi has centered around Phytophthora diseases of several woody plants. It has resulted in improved isolation techniques to increase the recovery rate from plants and soils. Other research has resulted in increased knowledge of epidemiology of holly blight for improved field control.

Identification of Trees Tolerant of Deicing Salts

Research at the ARS laboratory at Delaware Ohio has identified several tree species with tolerance to deicing salts. These trees can be planted and will survive on sites where salts are a problem, thereby saving the removal and replacement costs involved in loss of trees susceptible to deicing salts.

Chemical Basis for Root Weevil Resistance

The secret behind the resistance of some rhododendron varieties to weevils has been identified. Research at the Puyallup, Washington laboratory has found that resistant varieties secrete volatile chemical compounds called terpenes that repel weevils. Although genetic barriers prevent cross breeding of resistant with susceptible varieties, the techniques used to identify the terpenes should make it easier for breeders to screen new selections for weevil resistance. More importantly, there is the possibility that slow-release formulations of terpenes could be developed which could be sprayed on susceptible rhododendron varieties, or any other plant that weevils feed on, and serve as a biological repellent thus becoming an essential part of an integrated weevil control program.

Cultivar Identification

Work done at Beltsville Maryland on the use of flavonoid compounds for cultivar identification has been applied not only to poinsettia and geranium, but also to rose. The rose work has been done in cooperation with nursery farmers who have expressed interest in utilizing this technology in their rose breeding program. Understanding color chemistry will be important in predictive breeding for new color types.

Much of the success in many of the above areas of research has been the result of cooperative efforts between research agencies; such as the Agricultural Research Service, the U.S. Forest Service and their active interaction with State Agricultural Experiment Stations, universities and private groups interested in simiiliar research objectives.

Even though we are able to enumerate many examples of successful research programs, much research remains to be conducted in the increasingly important area of environmental improvement. What follows is a list of the more critical allied landscape/nursery industry research needs. We feel these more than adequately document our rationale for the continuation of ARS programs related to nursery industry research.

NURSERY INDUSTRY RESEARCH NEEDS

1. Engineering/Mechanization Systems Research is one of the prime needs of the nursery industry. Because of its specialized production practices (e.g. its use of seed beds, propagation benches, field nursery crops, container production, etc.), many new engineering advancements in other agricultural enterprises need to be adapted for nursery farm uses. Some examples include tractors, sprayers, materials handling systems, container growing media, irrigation, harvesting systems, as well as refrigeration and humidification for woody plant storage.

The need for a mechanization system may be illustrated by the harvesting and conveyance of balled and burlapped (B&B) shade trees. What is needed is a machine designed for harvesting and packaging B&B plants that will keep the root ball intact; package the root ball in a material that will holdup for nine months of storage and still be biodegradable at that point (or sooner upon planting); and finally, bind or contain the top or branches of the tree for minimum damage and conservation of space in shipping. The machine should be able to selectively dig, as opposed to row run, and preferably would load the finished product on to a conveyance which, with a minimal amount of handling, would enable the tree to ultimately be loaded onto trucks for a final destination.

Many more detailed engineering/mechanization research needs may be found in the proceedings of an American Society of Agricultural Engineering Workshop on nursery and greenhouse mechanization as printed in the 1980 "New Horizons" from the Horticultural Research Institute, 230 Southern Building, Washington, D.C. 20005.

2. The pesticide needs of the nursery industry to meet quarantines and regulations have not yet been fulfilled. These quarantines and regulations have been established to prevent the artifical spread of hazardous insects and diseases which might live on nursery plants. To ensure that the plants produced in nurseries are free of these pests, continuance of the IR-4 research program to obtain data to support extension of existing pesticide registrations for additional crops or pests remains a top priority.

3. A viable, healthy agricultural system is dependent primarily upon an efficient distribution and marketing system. Little or no substantive, qualitative research has been done in marketing for the nursery segment of agriculture. This area merits a high priority for inclusion in any research program. Topics for marketing research include:

a. Determination of the effects of production facility layout, location, equipment, methods of handling, and transportation on marketing costs;

b. Evaluation of the effects of characteristics of products (e.g. bare-root, B&B, container grown nursery crops, etc.) on marketing and processing costs;

c. Examination of the changing structures of production-marketing systems, including size and number of firms, patterns of ownership, development of contracted relationships, and competitive practices of firms;

d. Evaluation of the performance of the industry including prices, costs, and margins, and simulation of alternative systems to compare efficiency and performance.

4. Micropropagation (or tissue culture) research of woody plants needs greater emphasis. Current limitations on the number of woody plant species which can be propagated through tissue culture are being rapidly overcome by continued research. In some cases, minor modifications to existing production systems proves successful for the propagation of new cultivars. However, in many cases, more research has to be conducted before a commercially feasible system can be developed. Still another factor which emphasizes the need for additional micropropagation research of woody plants is the cost requirement for maintenance of propagation stock plants.

Many landscape plants and fruit plants grown for landscape use are very susceptible to infection by viral, bacterial and fungal pathogens. Cuttings taken from contaminated stock plants may also be infected. Infection usually leads to lower yields, poor quality of plants and fruit, and an overall reduction in plant growth and vigor. Because tissue cultured plants are grown in a sterile environment which is inacessible to insect vectors, stock plants for propagation can be grown without the elaborate cultural precautions which must be maintained in "clean" greenhouses. These cultures may then be used to establish specific pathogen free stock blocks which serve as a source of cuttings for conventional propagation. This program of producing specific pathogen free woody plants again emphasizes the need for continued tissue culture research of nursery crops.

The improvement of woody plants through the usual plant breeding techniques has been severely limited by the long life cycle of trees and shrubs. Microculture technology may be one answer to this dilemma. Essentially, the procedure involves fusion of the protoplasts of the desired plants and thus not necessarily waiting for the parent plants to flower. This provides great potential for markedly speeding-up the breeding process. Increased research in this area should see the development of woody plants which use less water and less fertilizer, are resistant to specific pests and require less growing time.

5. Although extensive research has been done on the post-harvest physiology and handling of many horticultural crops, surprisingly little work has been done on the acclimatization of woody plants. Yet, while such horticultural crops as cut flowers and fruit, woody plants are expected to live for years. As a result, determining the environmental requirements of specific woody plants after removal from the field is an area of research that needs emphasis and attention.

After removal from the field, woody plants must go through several environmental changes during storage and handling. Growers expect these plants to produce vigorus new growth several months later when they are replanted in their new surroundings. However, a tree may be replanted in an area with environmental conditions quite different from those of the production field. This can lead to problems, especially with plants sent from or shipped to the Southern Hemisphere. The plants must be conditioned for replanting in an area where the seasons are out of phase with the production site.

In addition, because nursery plants for export may be shipped to markets in closed containers, growers must specify the optimal environmental conditions for continued plant development during that period. Otherwise, an environment will be imposed on the plants which may be detrimental.

Thus there is need for the following: a) Provide a programmed, controlled environment during the post-production period to maintain plant vitality;
b) Make sure that the plants go through the required developmental stages; and
c) Make sure that the plants are properly acclimated for planting at the new site.

By determining growth dynamics for various nursery crops and by developing mathematical models to describe the relationships between envionmental treatments and plant responses, nurserymen should be able to determine the requirements for optimum growth, thereby increasing crop production. However, despite the obvious need for programmed environments, few guidelines are available. More research is needed. Powerful tools, such as computer modeling and simulation and quantative growth analysis, must be employed to help program plant development.

6. Additional research is needed with mycorrhizae to develop culture of inocula which can be used in the nursery propagation bench, potting mixes, seedling beds and for use when the plant is planted into the orchard, forest, garden or landscape site. However, before mycorrhizae become commercially available, further research needs to be performed to assure that inocula are pure, pathogen free and viable.

To make the most of mycorrhizal fungi, high-performance types need to be selected to improve nutrient and water uptake, disease resistance, and produce overall increased growth and development of the host. The selected fungi must be easy to reproduce and inoculate and they must be able to endure varying conditions for reasonable periods. Currently, endomycorrhizae cannot be routinely cultured, and the logistics of producing often slow-growing ectomycorrhizae need to be tackled.

7. Integrated pest and crop management systems research are needed for nursery produced plants. Much more needs to be learned about nursery plant pests in order to achieve more effective pest control and resultant plant protection. This information then needs to be incorporated into a systematic, interdisciplinary approach for nursery farm management.

8. As an extension of the above research need, chemical control of nursery plant pests is in need of extensive research, especially the integration of chemicals into pest management programs and in application technology. Research should be encouraged on methods of studying the impact of pesticide loss from regulatory and other actions. Data generated by such methods is needed by EPA and the USDA for benefit analyses and regulatory decisions.

Mode of action studies are not required for registration of commercial agricultural pesticides; thus, their investigation has been almost completely limited to researchers in the public sector. Research on the mode of action of chemicals used to control plant pests should be increased above the present level of activity. An intensified research effort in this area of pesticide chemistry should lead to new insights into the mechanism of resistance and selectivity of action of these chemical control agents. This research should also lead to the synthesis and design of new chemicals, elucidation of biochemical pathways in nursery plant systems, and an understanding of potential toxicological and environmental hazards.

Many new pesticides have at least limited systemic activity within the plant. The advantages of systemics are that they are effective at very low dosages, may be used therapeutically, and often do not require as perfect application coverage or exact timing as do the conventional protectants. Selective toxicity between the host plant cell and the target organism is the most crucial factor for systemicity. Most systemics have only limited mobility within the plant and little is known about the factors involved in uptake and mobility. Because these chemicals are highly selective compounds they may be more subject to the development of resistance in the target organism and may be relatively nontoxic to non-target organisms.

Thus, basic studies on systemic chemicals used in nursery plant pest control should be carried out in several areas. These include the effect of structure on uptake, systemicity, and target organism activity. The effect of adjuvants, host predisposition, and other factors on systemic action should be investigated. The design and discovery of structures which move in both the phloem and xylem of the plant should also be given prime consideration in research and discovery.

9. With an increasing percentage of nursery production being from asexual propagation, research is needed to develop appropriate control techniques for such woody plant pests as mycoplasma and viruses.

10. It is estimated that the period from 1930 to 1990 will be recorded as years when major losses of large trees occurred across the United States (e.g. Chestnut blight, Dutch elm diseases, Gypsy moth, etc.) This loss, though catastrophic, must also be viewed as an opportunity for a new beginning to improve current shrub and tree planting practices, reduce maintenance and mortality, and increase the benefits derived from plants in the environment. There are at least 16 areas related to shrub and tree planting, moving, and aftercare where major improvements through research are needed. They are: soil type, plant type, planting method, time of planting, nursery practices, planting backfill mix, mulch, photoperiod, wrapping, antidesiccants, pruning, watering, fertilization, root growth, insect protection, and disease protection. New practices with a scientific basis will result in nationwide urban plantings that will provide increased benefits at reduced maintenance cost and lower mortality rates.

11. Evaluation and selection of native plants for landscape environmental improvement is needed. This includes an evaluation of their postive and negative features to determine why they were previously not considered. Through selection and/or breeding programs, can their drawbacks be overcome? Research will also be needed to determine which native plants are adaptable to controlled propagation, as well as to determine the growth characteristics of potentially managable native plants. This research might be expanded to include establishment of guidelines for commercial growers which will help them move into their own testing programs.

12. Research is needed to determine the relationship between plant size, container size, and cultural practices as a basis for establishing plant container sizes.

To summarize, any research approach to improve nursery farm productivity and quality of nursery crops should focus on two main approach elements: (1) Development of cultural and management practices by obtaining fundamental knowledge of nursery plant growth processes, response to environment, and pest/plant/environmental interactions; developing management strategies for pests and beneficial microorganisms; and developing mechanization and crop management and marketing systems. (2) Development of fundamental genetic knowledge; developing effective gene transfer systems; and improving breeding and selection technology. The high value of most nursery crops and their substantial economic and aesthetic contribution to a wide sector of the population fully warrants increased investments in research for improving nursery farm productivity and the quality of nursery crops.

While we appreciate that the ARS is enjoined to pursue problems that are inherently long-term, broad scope, or high risk, this is no prohibition against applied work. There should always be a balance between basic and applied research. We hope that the ARS will function throughout that continuum of essential activities needed to provide knowledge and technology. In this vein, it seems to us more a matter of the complexity of the problem and how it is approached rather than whether it is basic vs. applied.

We understand, and agree, that ARS research must deal with fundamental aspects of matters critically and widely important to agriculture, of which we, the nursery industry are an important part. We also understand the ARS needs to do work of broadest potential impact as contrasted to a single unique application. Thus, in our list of research needs, the micropropagation (tissue culture) of plants, or the development of mycorrhizae can be viewed as being fundamentally important to many facets of agriculture. Either subject could be approached in a variety of ways from "basic" (cytology, genetic regulation) to "applied" (conditions for growth of plant cells in mass). A need for measures to control mycoplasma and viruses in asexually propagated plants could be seen in an analogous way.

In any event, there is no dearth of problems. We all need to husband our resources to address the most important of them. This means that we need to consider together who will do what. We thus hope to work cooperatively with the Office of Management and Budget and the Agricultural Research Service.

The industry too is helping to do its part through the research-arm of the American Association of Nurserymen -- the Horticultural Research Institute. This industry founded and funded organization has for the last twenty years helped to support and stimulate environmental horticultural research for the nursery industry and communicate the results to those who most need them -- the allied landscape/nursery industry and scientific community.

Not a research facility itself, the Horticultural Research Institute (HRI) serves as a non-profit conduit of research, business management and marketing information, and works with colleges, universities, state and federal governments, independent researchers, nursery business firms, and others involved with environmental horticulture. Through its Richard P. White program of grants, for example, HRI since 1974 has been able to award 127 grants to worthy projects. The results of these many research projects have been published by HRI through its various communications -- the most recent of which is its refereed Journal of Environmental Horticulture. It is in this way that HRI serves as a clearinghouse of research information of importance to the nursery industry and also serves as a unique resource — a common meeting ground where the researcher and the nursery industry have enjoyed a mutually profitable alliance.

For many years, the nursery industry has had to defend its rightful position as a part of the agricultural community. Whenever a law, or regulation, or budget allocation contains special provisions or treatment for agriculture, the nursery industry has had to prove — either in court or at regulatory hearings -- that it is as much a part of agriculture as any other segment. Too often, the term "production of food and fiber" is used in an attempt to define agriculture. Federal agencies should, in their regulatory definitions not deviate from the scientific definition of agriculture. Nor, should the former definition give cause for the reduction and possible elimination of research programs needed by the nursery industry.

The mission of the Agricultural Research Service is to "plan, develop, and implement research that is designed to produce the new knowledge and technologies required to assure the continuing vitality of the Nation's food and agriculture enterprise" (underlining ours). The nursery industry is an agriculture enterprise. As such, the federal government's contribution of minimal research is a reasonable expenditure of federal government funds. The ARS not only has the obligation to serve the research needs of the nursery industry, but to help that industry respond to the needs and demands of a major segment of the American public.

STATEMENT OF ROBERT W. JUDD, MANAGING DIRECTOR, NATIONAL SOYBEAN CROP IMPROVEMENT COUNCIL

Agricultural research does not cost, it pays! The verified 30 to 50 percent annual rate of return on funds invested in agricultural research produces net income. Wise financial management mandates increasing investments which provide above average rates of return. Profitable investments should be increased at the expense of those enterprises with less merit. We respectfully submit that your primary concern should be to ascertain the maximum rate of increase achievable annually for agricultural research. However, the trend has been in the opposite direction. The USDA outlay for research and development is estimated to be 1.98 percent of the Federal Government's total for those purposes in FY 1984. In FY 1982 the rate was 2.34 percent.

The President's budget for FY 1984 contains good news and bad news. We comment first on the good news.

The Agricultural Research Services' new Program Plan scheduled for Implementation from 1984 to 1990 has defined its response to the needs of our complex agricultural industry. The stated ARS Mission "is to plan, develop, and implement research that is designed to produce the new knowledge and technologies required to assure the continuing vitality of the Nation's food and agriculture enterprise".

We support the ARS analysis of needs, especially in the Plant research area. Plant genetic engineering, an emerging technology we have supported for ARS participation in previous testimony, has an allocation of $1.3 million. ARS administrators and the Secretary of Agriculture are to be commended for recognizing this new need. The U. S. Government has a definite role in sustaining a long term effort for scientists to determine the inheritance of the multitude of unknown factors affecting yield. Yield barriers in crops have not been identified and prioritized beyond the elemental level of drought or drowning. The ARS Mission is to develop underlying biological principles using a multidiscipline approach. It will involve molecular biologists, geneticists, biochemists and physiologists to maximize their productivity. Their research will provide basic information for soybean and other crops geneticists and breeders to use in improving plant yields and resistance to diseases and pests.

We also commend the $2.8 million increase to help offset increased operating costs and the $0.5 million for a new program of postdoctoral fellowships.

The Cooperative State Research Service budget proposal contains some bad news. Our highly successful State/Federal research partnership is being weakened by a declining share of commitment to the CSRS. The complimentary relationship will suffer decreased research capability and productivity if the State Experiment Stations are underfunded as shown in the Executive budget. Hatch Act allocations should be increased by raising the CSRS budget 5 percent over the FY 1983 commitment. That $12.2 million increase will more adequately support the ongoing high risk, long term, basic research which scientists at land-grant colleges rightfully pursue.

Another bad news item in the proposed CSRS budget is the elimination of two soybean research appropriations in P.L. 89-106 as amended.

The soybean crop is second only to corn in value of production and third, behind corn and wheat, in acreage. Soybeans were produced in 29 states with a farm value of $12.5 billion in 1982. Soybeans and products led the nation for years in value of agricultural exports.

The foresight of Congress resulted in establishing a special grant several years ago to stimulate and maintain more soybean production research. The $518,000 special investment should not be withdrawn now from the major crop with the lowest carryover in percent of annual utilization. Soybean carryover is less than 20 percent. Keep your money in the research areas with proven productivity.

The Soybean cyst nematode research project in Missouri has also been eliminated. The work being done there is helping farmers in their fight against this pest which now infests acreage in 22 states. We recommend the $300,000 grant be reinstated.

The Extension Service budget reduction from $328.6 million in FY 1983 to the proposed $287.1 million for FY 1984 is inconsistent in adequately supporting an essential part of the research-extension-teaching effort which has made our agricultural enterprise the best in the world. We recommend $41.5 million in increased funds to support the Extension-Service in FY 1984 to at least equal the FY 1983 level.

Bountiful U. S. harvests, the relative strength of our dollar and a struggling world economy have temporarily made our agricultural production appear to be a burden to this nation. A survey of the history of world agricultural supply and demand reveals this is only a blip on the screen of time. Research provides the long term solution to an ever-growing demand from an ever-growing world population. We must remain capable to successfully compete in and serve the needs of the world marketplace.

Support a stronger investment in agricultural research. It pays!

We support the Plant research allocation in the Agricultural Research Service budget which adds $1.3 million for plant genetic engineering, $2.8 million to help offset increased operating costs, and $0.5 million for a new program of postdoctoral fellowships.

We recommend increased support for basic research in the Cooperative State Research Service budget by adding $12.2 million, which is 5 percent above the FY 1983 commitment, to Hatch Act formula funds.

We recommend reinstatement of $518,000 for Soybean research under P.L. 89-106 Special Research Grants.

We recommend reinstatement of $300,000 for Soybean cyst nematode research, Missouri, under P.L. 89-106 Special Research Grants.

We recommend $41.5 million in increased funds for the Extension Service to equal the FY 1983 commitment.

Statement of the National Food Processors Association

The National Food Processors Association (NFPA) is a scientifically and technically based association representing about 600 member companies that pack processed-prepared fruits, vegetables, meats, fish and specialty products, including canned, frozen, dehydrated, pickled and other preserved food items. Also included among the Association's members are companies that provide equipment, supplies and services to the food processing industry.

Historically, the National Food Processors Association has advocated a balanced federal budget and has not sought increases in overall appropriations for agricultural research programs requested by any president. We have, however, on several occasions brought to the attention of this subcommittee our industry's concerns as to how funds are allocated within the proposed budget for agricultural research by state agricultural experiment stations and the facilities maintained by the U.S. Department of Agriculture. NFPA has been and continues to be particularly concerned as to the research conducted by the Agricultural Research Service (ARS). In this statement we once again must express our concerns that the proposed change in direction of research within the ARS will affect the future productivity of America's farmers.

The Agricultural Research Service recently unveiled the Agricultural Research Service Program Plan.*/ Nearly 500 scientists in the ARS contributed to development of this plan. This broad base of expertise resulted in an outstanding, clear description of current research and research needs without identifying specific priorities. However, the "6-year Implementation Plan, 1984-1990," dated February 1983 and developed by the administrators in the ARS, causes us great concern. The plan proposes to reduce plant productivity research by $29 million and animal productivity research by $4 million, with the savings of $33 million being reallocated to fund additional research in soil and water conservation, commodity conversion and delivery, adequate human nutrition, and integration of systems. The proposed diversion of funds from productivity research is based on ten factors which are questionable and open to other interpretation. The important role plant and animal productivity research has had in contributing to the transition between basic research and actual application of new technology has been ignored or forgotten. The 6-year implementation plan wrongly conveys the impression that increased production is the only quantifiable result from plant productivity research and totally fails to take note of other important benefits such as: increased efficiency

*/ USDA Miscellaneous Publication No. 1429

of production and reliability of crop yields; reduced energy consumption; reduced production costs; reduced losses from weeds, insects, diseases, nematodes and other pests; reduced soil erosion through improved cultural systems and, ultimately, better human nutrition because of the availability of high quality foods at reasonable prices.

The reemphasis on basic research within the Agricultural Research Service is a worthy goal. The ARS and its supporters in recent years have been continually reassessing critical needs for research with a strong emphasis on certain basic research areas. The Competitive Grants Program has provided sizeable increases in funding to support new research areas. In the current budget it is proposed that competitive research grants be increased in fiscal year 1984 from $15 million to $21.5 million dollars with $2 million earmarked for fundamental research on human nutrition and $4.5 million for basic animal science research. It is our view that current research programs and the new funds proposed in the 1984 budget will provide needed support for high priority research areas. However, we wish to emphasize that plant productivity and plant protection research are needed too if our agricultural system is to continue to be efficient and progressive. The cuts and redirections proposed in the FY 1984 budget and the 6-year implementation plan could have adverse effects on the food processing industry which depends on such programs to assure a continuing supply of high quality fruits and vegetables for American and world consumers.

The proposed reduction in animal and plant production research has been decided without adequate consultation with the State Agricultural Experiment Stations or the private research sector to determine whether they can make adjustments in their programs to fulfill research needs abandoned by the ARS. Although we, along with many other representatives from the private sector, participated in the Senior Staff Conference sponsored by the Agricultural Research Service in November 1982 and identified our special interests and priorities in agricultural research at that conference, it would seem that our views and comments had little impact.

In order to identify the most important agricultural research problems in the 1980s and beyond, we surveyed agricultural leaders of the food processing industry to determine their concerns. Development of new knowledge to enhance crop production efficiency - increasing yields to keep unit costs down while providing an adequate return to growers - was listed as the number one priority. We do not view a reduction in research on insects, diseases and nematodes of field and horticultural crops of $12.7 million (47%) or a reduction of $1.4 million (42%) in research on weeds of field and horticultural crops as well as reductions in crop productivity and quality research as moves to enhance crop production efficiency. Although one of the factors considered in the development of the 6-year implementation plan was the need for more ARS emphasis on "fundamental and applied research to increase efficiency of production," we cannot support reductions in plant and animal productivity research as the logical trade-off to achieve the objective of improving efficiency in American agriculture and gain increased support for other objectives.

STATEMENT OF REXFORD A. RESLER, EXECUTIVE VICE PRESIDENT, THE AMERICAN FORESTRY ASSOCIATION

Mr. Chairman, my name is Rexford A. Resler. I am Executive Vice President of the American Forestry Association. AFA is the nation's oldest national conservation organization dedicated to the promotion and wise use of the nation's forests and other renewable resources. In that capacity, I wish to comment on several elements of the Department of Agriculture's appropriations for fiscal year 1984.

		Millions	
Research	Actual FY '83	Budget FY '84	Recommendation FY '84
Hatch Act	$ 149.3	$ 149.3	$ 155
McIntire-Stennis	12.5	12.5	13
Extension			
Renewable Resources Extension Act	2.0	-0-	10.0
Soil and Water Conservation	-0-	-0-	2.0
Conservation Programs			
Agricultural Conservation Programs	190.0	56.0	200.0
Forestry Incentives Program	12.5	-0-	12.5
Soil Conservation Service	592.9	474.4	650.0

We recognize and support the logic of a balanced federal budget and are, therefore, recommending levels of appropriation that are substantially below what we believe needs to be done to expand the nation's agricultural and forest research capability, its extension functions, and essential conservation programs. We are not satisfied that renewable natural resources activities at the federal level are being given adequate attention by the Administration. During a period of expanding world population with greater dependence upon the production of food and fiber from the United States, now is not the time to cut back on the development of new technology that will be needed in future years. Research and extension institutions cannot be turned on and off at will. While we are confronted with surplus production of certain food and feed stocks at the moment, recovery in the world market will result in higher levels of international trade and greater dependence upon our basic production capacity.

This Committee has demonstrated its sensitivity to the needs of the agricultural and forestry component of our economy in the past and we urge you to continue the leadership function you have demonstrated. It is our hope that research funding in the Department of Agriculture, particularly for the Hatch Act and McIntire-Stennis authorities, can be retained at least at the fiscal '83 level; the inevitable, albeit reduced effects of inflation, suggest the need for modest increases in those programs.

The Renewable Resources Extension Act which was passed in 1978 experienced the first success in terms of funding fiscal year '83 at a level of $2 million when the authorization is $15 million. The President's budget advocates no funding for fiscal '84. We urge your favorable consideration of an increase for renewable resources extension at the level of $10 million.

When the Renewable Resources Extension Act was passed in 1978, it enjoyed a broad based support from conservation organizations including wildlife interests and grazing interests as well as forestry interests. We believe this important piece of legislation needs to be funded at a level adequate to begin to perform the function envisioned by Congress in extending technology to the forestry sector.

The agricultural conservation program which was funded at a level of $190 million in fiscal '83 is proposed to be funded at the $56 million level in fiscal '84. We believe that the funding level should be at least at the $200 million level in order to cope with some of the very serious problems this country and its farmers are facing. We believe that the farmlands so vital to our future are experiencing levels of erosion and loss of soil fertility that must be constrained. We hope this Committee will look favorably upon a modest increase in the agricultural conservation program, and especially Rural Community Fire Protection which, since 1975, has provided approximately $3.5 million to state foresters to organize, train and equip fire departments in rural areas. Each year, this program has helped organize 45 new departments, train 200,000 fire fighters and obtain $2 million worth of new equipment. Priority for assistance has gone to the communities least able to provide fire protection for their constituents. Annual requests based on the needs of qualifying communities exceeds available funds by a ratio of 4 to 1.

One of the agencies most vital to the future productivity of this country and its private farmlands is, or course, the Soil Conservation Service. We are particularly concerned at the very substantial cut in the President's budget from the fiscal '83 level of $592.9 million to the proposed level of $474.4 million. We believe that the appropriation level should be in the $650 million range if we wish to get on top of some of the very severe problems that the farmers and society in general are facing when we look into the future needs not only of the people of the United States, but peoples throughout the world.

Finally, Mr. Chairman, we are concerned with the elimination of the forestry incentives program in the President's budget. Arguments are made that the federal government should not be supporting reforestation activities on private lands. That is an activity, supposedly, that should be the responsibility of the private forest landowner or the responsibility of state and local institutions. It is also argued that the forest products industries small woodland owner assistance program reduces the need for federal support. We strongly endorse the forest products industries assistance program, but it must be recognized because of the effects of recession, corporate firms are unable to adequately fund that technical assistance program. Similarly, the states are unable to pick up the costs. The forestry incentives program has demonstrated its effectiveness in terms of bringing about more effective levels of regeneration of cut-over lands which, in turn, will very favorably influence future productivity of these lands which in turn stimulates the economy in total.

The forestry incentives program is targeted to the regeneration of the best quality forest lands. While the Administration argues that separate funding for this targeted program can be effectively melded into the broader ACP program, we believe that the forest lands would not be given the attention that they warrant unless the funding is specifically targeted. We request your favorable consideration of continuing this important program until such time as we see in place effective alternatives that will bring about the level of regeneration that we will need in the future.

I appreciate the opportunity to present the views of the American Forestry Association to this Committee.

STATEMENT OF MIKE FELT, VICE CHAIRMAN, GOVERNMENT RELATIONS, AMERICAN ASSOCIATION OF CROP INSURERS

MR. CHAIRMAN, I AM AGAIN PLEASED TO HAVE THE OPPORTUNITY TO APPEAR BEFORE YOUR COMMITTEE ON BEHALF OF THE AMERICAN ASSOCIATION OF CROP INSURERS. I HOLD THE POSITION OF VICE CHAIRMAN, GOVERNMENT RELATIONS, OF THIS ASSOCIATION. WE ARE AN ASSOCIATION OF INSURANCE COMPANIES, INSURANCE ORGANIZATIONS, TRADE GROUPS, AND AGENTS' ASSOCIATIONS THAT BELIEVE IN THE FEDERAL CROP INSURANCE PROGRAM AND ARE COMMITTED TO MAKING THE PROGRAM WORK. WE HAVE BEEN COMMITTED SINCE WE WORKED ON PASSAGE OF THE ENABLING LEGISLATION, AND WE WILL CONTINUE OUR COMMITMENT TO THE PROGRAM UNTIL IT IS FULLY IMPLEMENTED.

WE AGREE WITH THE POLICY EXPRESSED BY CONGRESS WHEN THIS LEGISLATION WAS ENACTED--THAT THE FEDERAL CROP INSURANCE PROGRAM SHOULD BE THE PRIMARY FORM OF FEDERAL DISASTER PROTECTION FOR FARMERS AND SHOULD SERVE TO REPLACE THE MANY OVERLAPPING FARM DISASTER PROGRAMS. THE INEQUITIES OF THE OLD DISASTER ASSISTANCE PROGRAM MADE IT OBVIOUS TO THE FARM COMMUNITY, THE LEGISLATORS, AND THE DEPARTMENT OF AGRICULTURE, THAT A NEW SYSTEM OF DISASTER RELIEF WAS NEEDED--A SYSTEM THAT THE FARMERS COULD UNDERSTAND AND PLAN ON IN ADVANCE, INSTEAD OF BEING PREY TO THE ANTIQUATED "LOTTERY" SYSTEM OF RECEIVING DISASTER RELIEF.

CHANGE IS ALWAYS DIFFICULT AND THE TRANSITION FROM THE INEQUITABLE DISASTER PROGRAM TO A WELL MANAGED, ACTUARIALLY SOUND INSURANCE PROGRAM HAS NOT BEEN EASY. HOWEVER, WE BELIEVE WE ARE WELL ON OUR WAY TO PROVIDING THE FARMERS WITH THE PROTECTION THEY DESERVE, WHILE AT THE SAME TIME COSTING THE TAXPAYERS AS LITTLE AS POSSIBLE.

THOSE OF US WHO ARE MEMBERS OF THE AMERICAN ASSOCIATION OF CROP INSURERS HAVE A LENGTHY EXPERIENCE IN SERVING THE FARMERS. WE REALIZE THAT THE CROP INSURANCE PROGRAM WILL BE SUCCESSFUL ONLY IF THE FARMERS OF THE NATION ARE TRULY AND PROPERLY SERVED. WE ARE TOTALLY COMMITTED TO PLACING MULTI-PERIL CROP INSURANCE ON PRIVATE COMPANY CONTRACTS THAT ARE SOLD AND SERVICED BY INDEPENDENT AGENTS IN THE SAME MANNER AS CROP HAIL INSURANCE HAS BEEN WRITTEN FOR YEARS.

MOST OF US LIVE IN FARM COMMUNITES AND THE FARMERS ARE OUR NEIGHBORS. THEIR LIVELIHOOD IS AN IMPORTANT AND INTEGRAL PART OF THE ECONOMIC WELL BEING OF OUR COMMUNITIES. WE REALIZE THAT ALONG WITH THE OPPORTUNITY FOR THE PRIVATE SECTOR TO DELIVER CROP INSURANCE COMES A RESPONSIBILITY TO DELIVER A PROGRAM THAT WILL PROVIDE PROTECTION FOR OUR FARMERS. WE KNOW THAT WE MUST BE RESPONSIBLE TO THE FARMERS' NEEDS AND WE KNOW THAT THIS PROGRAM WAS ENACTED BY CONGRESS FOR THE FARMER -- NOT FOR THE CROP INSURANCE INDUSTRY.

MR. CHAIRMAN, WE BELIEVE THAT WE ARE MEETING THIS RESPONSIBILITY. SINCE THE EXPANDED PROGRAM WAS ENACTED IN 1980, CROP INSURANCE HAS INCREASED FROM 1,676 COUNTIES TO 3,000 COUNTIES -- VIRTUALLY EVERY COUNTY IN THE U.S. WHERE AGRICULTURE IS PRODUCED. IN ADDITION, COUNTY PROGRAMS HAVE INCREASED FROM 4,629 IN 1980 TO JUST OVER 15,000 IN 1982. THIS MEANS THAT CROP INSURANCE IS NOW AVAILABLE IN ALL AGRICULTURAL COUNTIES PREVIOUSLY COVERED BY DISASTER PAYMENTS.

WE BELIEVE THAT OUR ASSOCIATION HAS WORKED WELL WITH FCIC OFFICIALS TO IMPLEMENT THE PROGRAM. WE ESTABLISHED A STEERING COMMITTEE WHICH HAS MET REGULARLY WITH FCIC MANAGEMENT TO BRING ABOUT PROGRAM IMPROVEMENTS. THE 1983 AND 1984 POLICIES CONTAIN MANY VERY POSITIVE IMPROVEMENTS THAT WILL BENEFIT THE FARMERS ACROSS THE NATION.

BOTH THE FCIC AND THE AMERICAN ASSOCIATION OF CROP INSURERS HAVE SPONSORED TRAINING PROGRAMS FOR AGENTS. FARMER PARTICIPATION, WHILE NOT AS HIGH AS WE WOULD LIKE, IS INCREASING AND WE BELIEVE THAT THIS IS A DIRECT RESULT OF THE AGENTS' CONFIDENCE IN THE CROP INSURANCE PROGRAM AND THE FARMERS' SATISFACTION WITH THE SERVICE THEY ARE RECEIVING. AS YOU PROBABLY KNOW, THE PRIVATE COMPANIES ARE REQUIRED TO PAY CLAIMS WITHIN 30 DAYS, AND I AM PLEASED TO TELL YOU THAT WE HAVE BEEN ABLE TO PROVIDE THE PROMPT SERVICE DEMANDED BY THIS REQUIREMENT.

OTHER IMPROVEMENTS IN THE PROGRAM INCLUDE THE INDIVIDUAL YIELD COVERAGE PLAN, WHICH LETS PRODUCERS SET THEIR INSURANCE YIELD AS GOOD AS THEIR RECORDS WILL PROVE, LATE PLANTING OPTIONS, BETTER EDUCATION AND TRAINING, AS WELL AS OTHER ADMINISTRATIVE AND TECHNICAL CHANGES.

ALL IN ALL MR. CHAIRMAN, WE BELIEVE THAT THE MULTI-PERIL CROP INSURANCE PROGRAM OFFERS THE BEST POSSIBLE PROTECTION TO OUR FARMERS, AND AGAIN, WE ARE COMMITTED TO MAKING THE PROGRAM WORK.

WE ARE KEENLY AWARE OF THE ENORMOUS ADMINISTRATIVE AND TECHNICAL BURDEN THAT THIS EXPANDED PROGRAM HAS CREATED FOR FCIC. THERE IS NO DOUBT THAT THERE HAVE BEEN PROBLEMS, AND THERE IS NO DOUBT THAT THERE ARE BOUND TO BE PROBLEMS WHEN ONE CONSIDERS THE MASSIVE UNDERTAKING OF RAPIDLY EXPANDING, ON A NATIONWIDE BASIS, THE MUTLI-PERIL CROP INSURANCE PROGRAM.

THE PRIVATE SECTOR HAS ALSO HAD ITS SHARE OF ADMINISTRATIVE AND START-UP PROBLEMS. AS IN ANY NEW UNDERTAKING, IT HAS TAKEN TIME TO PROVIDE THE PROPER TRAINING FOR OUR AGENTS SO THAT THEY CAN BE AS RESPONSIVE AS POSSIBLE TO THE FARMERS. HOWEVER, I AM PLEASED WITH THE PROGRESS WHICH WE HAVE MADE. LAST YEAR, OVER 4,500 AGENTS WENT THROUGH THE AACI TRAINING PROGRAM. WE ARE CONCERNED THAT ALL THOSE SELLING MPCI KNOW THE PROGRAM, AND WE WILL CONTINUE TO COMMIT OUR RESOURCES TO PROPERLY TRAIN OUR AGENTS.

MR. CHAIRMAN, THE REASON I AM APPEARING BEFORE YOUR COMMITTEE TODAY IS TO SPEAK ON BEHALF OF THE ADMINISTRATION'S BUDGET REQUESTS FOR THE FEDERAL CROP INSURANCE CORPORATION. WE SUPPORT THE SECRETARY OF AGRICULTURE'S REQUEST FOR $278,987,000 FOR ADMINISTRATIVE AND OPERATING EXPENSES, THE REQUEST FOR $170,000,000 FOR PREMIUM SUBSIDY FOR THE 1983 CROP YEAR, AND THE $24,883,000 FOR RESTORATION OF FUNDS BORROWED FROM PREMIUM INCOME IN FISCAL YEAR 1982. WE FEEL THAT THE WAY CONGRESS STRUCTURED THE NEW FEDERAL CROP INSURANCE PROGRAM PERMITS A MINIMUM OF ADMINISTRATIVE AND OPERATING EXPENSES BY THE FEDERAL GOVERNMENT. BY USING THE PRIVATE INSURANCE COMPANIES AND AGENCIES, THE FCIC HAS MADE MULTI-PERIL CROP INSURANCE AVAILABLE NATIONWIDE WITHOUT HIRING THE HUGE BUREAUCRACY THAT WOULD HAVE BEEN NECESSARY TO HANDLE IT EXCLUSIVELY THROUGH FCIC. HOWEVER, A PROGRAM OF THIS MAGNITUDE REQUIRES CERTAIN ADMINISTRATIVE EXPENSES. BY

USING PRIVATE INSURANCE COMPANIES TO THE MAXIMUM EXTENT POSSIBLE, FCIC IS COSTING THE TAXPAYER THE MINIMUM AMOUNT.

THIS APPROPRIATION REQUEST FOR ADMINISTRATIVE AND OPERATING EXPENSES WILL ENABLE FCIC TO CONTINUE EXPANSION INTO ADDITIONAL COUNTY PROGRAMS AND IMPROVE THE QUALITY OF SERVICE PROVIDED TO INSURED FARMERS FOR CROP YEAR 1984.

IN TESTIMONY BEFORE YOUR COMMITTEE, MERRITT SPRAGUE, MANAGER OF THE FCIC, INDICATED THAT THIS REQUEST FOR ADMINISTRATIVE AND OPERATING EXPENSES WOULD PROVIDE THE RESOURCES TO EXPAND INSURANCE COVERAGE FROM THE CURRENT LEVEL OF 44 MILLION INSURED ACRES TO 85 MILLION INSURED ACRES IN 1983 AND TO 106 MILLION INSURED ACRES IN 1984. THE ADMINISTRATIVE AND OPERATING EXPENSES ARE NECESSARY TO PROVIDE FUNDS FOR THIS EXPANSION.

BECAUSE OF THE LARGE RISK INVOLVED IN WRITING CROP INSURANCE, MULTI-PERIL CROP INSURANCE CAN ONLY BE PROVIDED ON A NATIONWIDE BASIS WITH THE COMMITMENT OF THE FEDERAL GOVERNMENT. THE $170 MILLION REQUESTED FOR PREMIUM SUBSIDY FOR THE '83 CROP YEAR IS NECESSARY FOR THE PROJECTED EXPANSION OF THE MULTI-PERIL PROGRAM. THIS REPRSENTS AN INCREASE OF $54.4 MILLION OVER FISCAL YEAR 1983'S APPROPRIATION AND IS BASED ON THE ASSUMPTION THAT THE TOTAL PREMIUM WILL INCREASE IN CROP YEAR 1983 AS SALES INCREASE. AS YOU KNOW, THE CORPORATION IS NOT REQUESTING AN INCREASE IN CAPITAL STOCK AT THIS TIME.

MR. CHAIRMAN, WE HEAR CRITICISM THAT THE RATE REIMBURSEMENT STRUCTURE IS TOO HIGH--THAT THE PRIVATE INSURANCE COMPANY IS GETTING RICH AT THE EXPENSE OF THE FARMERS. I TOTALLY DISAGREE AND WOULD LIKE TO COMMENT ON THIS.

BACK IN THE 1970'S, A FEW OF THE INSURANCE COMPANIES WRITING HAIL BUSINESS BEGAN EXPERIMENTING WITH WRITING MULTI-PERIL CROP INSURANCE WITHOUT THE GOVERNMENT'S CATISTROPHIC REINSURANCE SUPPORT AGREEMENT. THESE COMPANIES WERE FORCED TO DISCONTINUE, OR TO DRASTICALLY SCALE DOWN THIS PRACTICE, BECAUSE OF THE BAD LOSS EXPERIENCE.

WHEN CONGRESS ENACTED THE 1980 FEDERAL CROP INSURANCE ACT, ONLY A SMALL NUMBER OF THOSE COMPANIES WHO HAD INITIALLY EXPERIMENTED IN THE MPCI PROGRAM, OR THOSE COMPANIES WHO WERE ALREADY WRITING CROP HAIL BUSINESS COULD AFFORD TO ENTER INTO THE REINSURANCE AGREEMENT BASED ON THE RATES PROVIDED. WHY? BECAUSE ONLY THOSE COMPANIES WITH ESTABLISHED DELIVERY SYSTEMS COULD AFFORD TO BECOME INVOLVED IN THE REINSURANCE AGREEMENT. HOWEVER, BY UTILIZING OUR PAST EXPERIENCE AND ADOPTING THE CROP HAIL DELIVERY SYSTEM, WE WERE ABLE TO PROVIDE THE BADLY NEEDED SERVICE TO OUR FARMERS. AACI HAS CONTINUOUSLY TRIED TO CONVINCE MORE AND MORE PRIVATE INSURANCE COMPANIES TO BECOME INVOLVED IN THIS PROGRAM, AND OUR NUMBERS ARE INCREASING. WE HOPE THEY WILL CONTINUE TO INCREASE, BUT WE MUST ALSO LOOK AT SOME OF THE REASONS FOR THE PRIVATE SECTOR'S RELUCTANCE TO MAKE THE COMMITMENT TO PROVIDE MPCI.

FIRST, THE EXPENSE RATE STRUCTURE DOES NOT PROVIDE PRIVATE SECTOR WITH ANY PROVISIONS FOR START-UP COSTS, THUS THE ONLY WAY COMPANIES CAN ENVISION A PROFIT FROM THE MPCI PROGRAM IS TO THINK LONG-TERM. THESE LONG-TERM COMMITMENTS

INVOLVE A TREMENDOUS AMOUNT OF PHYSICAL AND FINANCIAL RESOURCES AND, QUITE FRANKLY, WE BELIEVE COMPANIES ARE RELUCTANT TO MAKE THIS COMMITMENT BECAUSE THEY ARE NOT CONVINCED THAT THE FEDERAL GOVERNMENT WILL STAND BEHIND THEM. THEY ARE NOT SURE THAT CONGRESS WON'T CHANGE THE LAW AUTHORIZING THIS PROGRAM. THE CONFUSION AND CHANGES IN THE PROGRAM THUS FAR HAVE MADE IT VERY DIFFICULT FOR FCIC TO CONVINCE PRIVATE SECTOR TO BECOME INVOLVED.

NOW I ASK YOU, IF THIS INSURANCE PROGRAM WAS A "POT WITH GOLD LINING", WHY WOULDN'T INSURANCE COMPANIES JUMP AT THE CHANCE TO PARTICIPATE?

THE TRUTH OF THE MATTER IS, THE EXPENSE RATE STRUCTURE IS SUCH THAT WITHOUT A DELIVERY SYSTEM ALREADY IN PLACE, INSURANCE COMPANIES CANNOT MAKE ANY PROFIT IN WRITING MPCI.

WE ARE NOT BLAMING FCIC OR THE FEDERAL GOVERNMENT, HOWEVER. WHEN THE RATE REIMBURSEMENT SCHEDULE PROGRAM WAS INITIATED, THERE WERE NOT ADEQUATE RECORDS TO BASE A RATE STRUCTURE ON. WE HAD TO START AT THE BEGINNING AND HAD TO GARNER THE BEST INFORMATION WE COULD AND ESTABLISH AN EXPENSE RATE. WE, WHO ARE MEMBERS OF THE AMERICAN ASSOCIATION OF CROP INSURERS, WILL CONTINUE TO WORK WITH FCIC TO EVALUATE THE TERMS OF THE AGREEMENT WITH THE PRIVATE SECTOR. IT SHOULD BE THE RIGHT AGREEMENT FOR BOTH PARTIES AND AS THE TRACK RECORD IS BUILT, WE WILL ENCOURAGE CHANGES.

HOWEVER, WE ARE CONVINCED THAT IN THE END, IT WILL BE PROVEN THAT THE PRIVATE SECTOR, WHO PAYS TAXES TO THE GOVERNMENT, CAN DELIVER THE PROGRAM MORE COST-EFFECTIVELY THAN THE FEDERAL GOVERNMENT EVER COULD. WE ARE CONVINCED THAT THE PRIVATE SECTOR WILL DO A BETTER JOB FOR BOTH THE FARMER AND THE TAXPAYER.

IT IS THE BELIEF OF THE AMERICAN ASSOCIATION OF CROP INSURERS THAT THE MOST EQUITABLE, LEAST EXPENSIVE, LONG-TERM PROGRAM OF DEALING WITH ALL OF THE NATURAL DISASTERS IS THROUGH A NATIONWIDE, MULTI-PERIL CROP INSURANCE PROGRAM. PRIVATE INDUSTRY IS COMMITTED TO MAKING THIS PROGRAM WORK, BUT UNLESS THERE IS SUFFICIENT FUNDING TO IMPLEMENT THE ACT, NOT ONLY WILL THE NATION'S FARMERS BE SHORTCHANGED, BUT ALSO THE INTEREST OF PRIVATE INSURANCE COMPANIES WHO HAVE COMMITTED THEIR RESOURCES, BOTH PHYSICALLY AND FINANCIALLY, TO MAKE THIS PROGRAM SUCCESSFUL.

IN CLOSING MR. CHAIRMAN, WE HOPE THAT AS YOU CONSIDER THE BUDGET REQUEST SUBMITTED BY FCIC, YOU LOOK AT THE PROGRAM AND EVALUATE IT FOR WHAT IT IS -- A PROGRAM THAT INSURES THE FARMERS AGAINST NATURAL DISASTERS. WE HOPE THAT YOU WILL NOT LOOK AT THIS PROGRAM AS A SOLUTION TO THE FARMERS' ECONOMIC WOES. WE KNOW THAT THE FARMERS ARE FACING THE WORST ECONOMIC TIMES IN RECENT HISTORY. HOWEVER, WE FEEL IT WOULD BE A MISTAKE TO BLAME THE CURRENT AGRICULTURE ECONOMIC CRISIS ON THE CROP INSURANCE PROGRAM. AGAIN, MR. CHAIRMAN, WE APPRECIATE THE OPPORTUNITY TO TESTIFY IN SUPPORT OF THE PROGRAM AND WE HOPE THAT YOUR COMMITTEE WILL ACT FAVORABLY ON THE FEDERAL CROP INSURANCE BUDGET REQUEST FOR FISCAL YEAR 1984.

STATEMENT OF DR. HAROLD LODEN, EXECUTIVE VICE PRESIDENT, AMERICAN SEED TRADE ASSOCIATION, INC.

I am Harold Loden, Executive Vice President of the American Seed Trade Association (ASTA). The Association is made up of over 600 firms which produce and sell seeds. Research, both private and public, is the backbone of the industry.

This Committee is aware, as is the seed industry, that the better the agricultural research system performs, the harder it is to obtain funding to offset increasing costs and provide for new initiatives. The continued high rate of return from public-funded agricultural research to government, industry, the farmer and the ultimate consumer is apparently not enough justification to adequately support the program. It is to the credit of this Committee that, through the years, the vicissitudes of a changing society have not reduced the effectiveness of a system which is the envy of the world.

There is nothing simple, of course, about the research agenda required to feed the world of the future. Research which provides the technology to meet world food needs must continue to be nurtured, strengthened and honed if we are to meet these challenges. The U.S. Department of Agriculture has published its plan on how to go about meeting these challenges in the coming years. The seed industry is in a continuing dialogue with the USDA and Experiment Station Directors in order to balance priorities and make the research system responsible and compatible with current and future needs.

This is a year of crop surpluses, but 10 years ago we had a worldwide shortage of food. Government programs designed to reduce current surpluses are in place. These programs have impacted segments of the seed industry and have caused readjustments in current and future production plans. This does not mean that the current situation will modify the level of agricultural research conducted by the industry nor does it indicate a need to reduce agricultural research conducted with public funds.

Bumper crops in the last few years, coupled with the world economic environment, have caused a temporary blip in the supply levels of major domestic commodities. World food demand will double in the next 40 years and the United States will be called upon, and must be prepared, to furnish a large part of this demand. The only way we can possibly accomplish this is through a sound program of agricultural research.

The President's Budget for FY 1984 provides for a 15 percent increase ove. 1983 for basic research in the physical and engineering sciences. Support for basic research in the life sciences, particularly NIH, has been growing significantly in recent years. Agriculture has not been included in increases for "life sciences" in the past nor is it included in increases in the '84 Budget. We believe that basic science support in agricultural research is a major omission in achieving balanced federal support for basic research.

The flexibility, responsiveness and relevance of agricultural research, extension and teaching are largely due to local determination of programs. We believe this characteristic must be maintained. As an agricultural association, we urge this Committee to provide for the training of scientists in agricultural areas. No problem could be more devastating in the future than a lack of trained agricultural scientists.

ASTA has reviewed the USDA proposal for the Fiscal Year 1984 Research Budget and we recommend a 7 percent increase in the base programs over FY 1983. This includes the Hatch Act ($10.5 million), McIntire-Stennis Act ($900,000), Smith-Lever Act Sections 3b and 3c ($16.1 million), 1890 Extension ($3.7 million) and 1890 Research ($1.6 million). The increases are needed to maintain the base and to permit new initiatives in emerging scientific areas.

We would also recommend funding the higher education program with

$10 million for competative graduate fellowships. The teaching component of the Land Grant System provides the scientists, technicians, educators and entrepreneurs for the entire food and agricultural system. The private sector has approximately the same number of plant breeders, PhDs, M.S. and B.S. holders as do the universities. In order to meet the future manpower needs of education and research within the universities and an expanding seed industry, increased emphasis must be placed on providing the required number of plant breeders to maintain and expand the system.

I wish to express my appreciation to the Chairman and the other members of the Committee for this opportunity to present the views of the American Seed Trade Association.

STATEMENT OF JACK A. BARNETT, EXECUTIVE DIRECTOR, COLORADO RIVER BASIN SALINITY CONTROL FORUM

In support of the Administration's request for $12.6 million in a consolidated USDA budget for the Colorado River Basin Salinity Control Program

Including:

1) $10 million for ASCS cost sharing
2) $2.4 million for SCS planning, technical assistance, monitoring, and evaluation
3) $200,000 for Extension Service, education assistance

Subtotal $12.6 million

In addition:

4) $750,000 for ARS research support
5) $550,000 for Cooperative State Research Service, Agency Experiment Stations

Subtotal $ 1.3 million

TOTAL $13.9 million

Mr. Everett Rank, the Administrator of the Agricultural Stabilization Conservation Service (ASCS), testified before this subcommittee concerning the need for funds for the Colorado River Basin Salinity Control Program. In behalf of the Colorado River Basin Salinity Control Forum, I present this testimony

in strong support of the testimony given by Mr. Rank. The program that he proposes in his testimony has been discussed and negotiated with the seven Colorado River Basin states over a significant period of time. The Department of Agriculture and the states are in very close agreement as to the role that the Department of Agriculture can and should play in helping to control the salt contributions from irrigated lands in the Colorado River Basin so as to maintain the salinity concentrations in the Colorado River. Legislation has been introduced by western senators and has been identified as S. 752. That legislation was prepared after many months of discussions and negotiation by the basin states. This legislation authorizes the agriculture programs that were described in Mr. Rank's testimony. The legislation proposes a form of cost sharing which would return 25% of the funds expended by the federal government after significant cost sharing has been provided by local farmers. We believe this is a program whose time has come that it is essential that Congress properly fund this program at this time.

The Colorado River Basin Salinity Control Forum is composed of representatives, appointed by the governors, from the seven basin states of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. The objective of the Forum is to provide a basin-wide coordinated approach to control salinity concentrations of the river at acceptable levels while the states continue to develop their compact apportioned waters. Most of the members of the Forum are from the water resource and water quality agencies of the state governments. A list of the members is attached.

The Forum has presented statements to Congress in the past in support of funding for the Colorado River Basin salinity control program carried out under Title II of P.L. 93-320, the Colorado River Basin Salinity Control Act. In the past, most of the activities in the program were under the leadership of the Secretary of the

Interior. Now there are very important activities that can, and should, be carried out under the direction of the Secretary of Agriculture. Studies in the Colorado River Basin (since the passage of P.L. 93-320) have shown that onfarm efforts should be equally important as the programs authorized in the Act for the Department of the Interior. They appear to provide some of the most cost effective, short term, salinity control opportunities available in the basin.

With the realization of the importance of the agricultural portion of the salinity control strategies, the Forum identified ways to amend P.L. 93-320 to authorize a Colorado River Basin agricultural onfarm salinity control program. The legislation has been introduced in Congress (S. 752) and is now being considered. In December of 1982, the Administration forwarded legislative reports to Congress supporting similiar legislation.

In the past, Congress has directed funds to be used from funds appropriated for the nation-wide Agricultural Conservation Program (ACP). It is recognized that presently there are not adequate funds in this program to provide the level of support needed nation wide for ACP programs and to also provide the level of funding necessary to attack salinity problems created by agriculture practices in the Colorado River Basin. The Administration has asked for a special line item in the amount of $12.6 million for this purpose. The Forum strongly supports this request.

The Department of Agriculture has been cooperating with the Bureau of Reclamation, Environmental Protection Agency, other federal agencies, state agencies, and local agencies in the investigation of salt sources in the basin which originate from irrigated agriculture. These salt contributions are due primarily to irrigation of lands which are underlain by saline geologic formations such as the Mancos shale. As a result of these studies, Congress directed the Department of Agriculture to initiate an onfarm improvement program in FY 1979 for salinity control in the Grand Valley of Colorado. In FY 1980, this was expanded to the Uinta Basin of Utah. Soil Conservation Service studies indicated that there is much yet to be accomplished in these two areas and several other areas are ready to start onfarm programs to reduce salinity pollution.

The onfarm programs of the Department of Agriculture are designed to reduce the salt load through improved irrigation systems and onfarm water management. It includes the installation of irrigation pipelines, lining of farmers' head ditches, installation of automated gated pipe, land leveling, and the use of drip and sprinkler irrigation on selected areas. These onfarm practices appear to be very cost effective means of salinity control.

In fiscal years 1979 through 1983, the seven basin states, through the Colorado River Basin Salinity Control Forum, sought increases in the Department of Agriculture budget for onfarm salinity control activities. The Congress has seen fit to instruct the ASCS to allocate $1.7 million in 1979, $3.7 million in 1980, $3.7 million 1981, $3.7 million in 1982, and $4.0 million in 1983, of its on-going ACP fund for this activity. A coordinated level of funding was provided for technical assistance by the Soil Conservation Service and research by the ARS.

Eight years of research has now indicated to us that the objective of controlling the salinity concentrations of the river at acceptable levels while the states continue to develop their compact apportioned waters cannot be met unless a significant onfarm program is implemented. We are excited about the opportunities these onfarm strategies provide. They afford not only water quality protection for downstream water users, but an opportunity for upstream irrigators to improve their farming practices, reduce soil erosion, improve soil chemistry, increase irrigation efficiencies, reduce required onfarm labor, and increase productivity.

The experience of the last three years has demonstrated that upstream irrigators are anxious to cooperate in the cost sharing programs implemented. They volunteer to participate and invest their own funds in a cost sharing effort. Perhaps as much as 25% of the total basin-wide costs will be paid by local farmers. Of the remaining funds spent, 25% will be paid back by the basin states.

Implementation of this program will not only enhance the irrigation efficiencies of upstream water users, but downstream irrigators will be significantly benefited by improved water qualities. Improved water quality will reduce salinity problems in downstream soils. Also, millions of water users that use the Colorado River water for municipal and industrial purposes will reap the benefits of improved water qualities.

On behalf of the Colorado River Basin Salinity Control Forum, I thank you for the opportunity to present this statement.

COLORADO RIVER BASIN SALINITY CONTROL FORUM

Members

ARIZONA:

Wesley Steiner, Director
Department of Water Resources

Ronald L. Miller, PhD, Chief
Bureau of Water Quality Control

Stewart Udall
Attorney at Law

CALIFORNIA:

Walter G. Pettit, Chief, Technical Services Division
State Water Resources Control Board

Myron B. Holburt, Chief Engineer
Colorado River Board of California

COLORADO:

D. Monte Pascoe, Executive Director
Department of Natural Resources

David Robbins
Attorney at Law

Dr. Robert A. Arnott, Assistant Director
Department of Health

NEVADA:

Duane R. Sudweeks, Director
Colorado River Commission of Nevada

Lewis H. Dodgion, Administrator
Division of Environmental Protection

Roland D. Westergard, Director
Department of Conservation and Natural Resources

NEW MEXICO:

Stephen E. Reynolds
State Engineer

UTAH:

Calvin K. Sudweeks, Director
Bureau of Water Pollution Control

Daniel F. Lawrence, Director
Division of Water Resources

WYOMING:

George L. Christopulos
State Engineer

William L. Garland, Administrator
Water Quality Division

STATEMENT OF JAMES A. GRAHAM, NORTH CAROLINA COMMISSIONER OF AGRICULTURE

Senator Cochran and members of the committee: Thank you for the opportunity to appear before you today to make a statement concerning the USDA-APHIS budget and specifically the reduced funding level for 1984 for the witchweed program.

Witchweed is a parasitic weed that attacks corn, sorghum, sugar cane, and many grassy weeds. It can reduce yields by 50 percent, doing its damage underground by attaching to host roots. It was first found in the United States in the eastern part of North Carolina in 1956 and subsequently in 38 counties of North Carolina and South Carolina.

The federal government reacted to the discovery of this pest by establishing a quarantine in 1957. USDA personnel regulate movement of commodities and machinery that can spread the pest. They keep survey records on every known infested field and prevent witchweed from producing seed using techniques especially developed for witchweed. The program has succeeded in containing witchweed within the same general area of discovery and in eliminating it from ten previously infested counties. Of the land presently under quarantine, 42 percent is thought to be witchweed-free. Of the total area ever known to be infested, 39 percent has been released from quarantine. Therefore, 65 percent of the total area ever known to be infested with witchweed is now thought to be free. A major release of formally infested acreage, 109,849 acres, has occurred in the last two years and is based on new technology employed in the program. We now have the technology to eradicate witchweed and thus over a relatively short time frame eliminate expenditures for this program.

The 1983 level of funding of $4.7 million provides for the continuation of a very effective regulatory, survey, suppression, and eradication program. Survey and control activities are vital components of the program because certification of commodities is based on the determination that witchweed is below detectable levels in a given field; this assumes that the witchweed status of every field is known through visual survey and soil sampling. Some regulated commodities from infested areas can move if they are washed free of soil. Suppression and eradication activities are geared towards decreasing the amount of acreage infested and spot-treating new infestations to prevent spread. Other states have faith in the quality of the cooperative witchweed program in its present form. They have not established their own exterior quarantines and accept the farm-by-farm certification as presently established.

Termination of USDA involvement in the witchweed program would be a regulatory nightmare for the states. If this were to happen, the Carolinas would have to assume responsibility for conducting a strong quarantine and certification program before articles capable of moving the pest could be traded in national and international commerce. Survey and containment activities would have to be strong components of the total quarantine program as certification of commodities is based on knowledge of where and to what degree witchweed occurs. A Carolinas operated program would require about $5 million per year and the hiring of an additional 72 full-time plus 200 seasonal personnel. Commodities such as peanuts, sweet potatoes, Irish potatoes, nursery stock, cucumbers, watermelons, other vine crops, soybeans, corn, hay, peppers, etc., would have to be certified before they could be moved out of the regulated areas. The states would also have to regulate equipment sales yards, outdoor storage and shipping areas, and shipping containers such as bags, boxes and crates. USDA personnel are trained, in place, and handle all these activities at the present time. The states just don't have the funds nor the trained personnel to take over this job. As a result, non-infested states and foreign countries will most likely establish their own exterior quarantines in regard to the movement of commodities capable of spreading the pest. This could have disastrous effects on the Carolinas. The value of regulated commodities just in infested counties alone exceeds $500 million per year. As witchweed spreads, buffer areas beyond the presently infested areas would be incorporated into exterior quarantine regulations. It would be a matter of time before the bounds of the infested area could expand to other parts of the United States. Witchweed is a threat to all corn growing areas of the United States, as it can grow and reproduce under climatic conditions similar to those in other corn growing regions of the United States. The number of acres of corn, sorghum, and sugar cane in the United States that can potentially be infested with witchweed is approximately 80 million acres. Grower control costs could exceed $1 billion annually.

We certainly recognize that North Carolina, as an infested state, has a significant role in combating witchweed. Our farmers within quarantined areas suffer the consequences of regulatory compliance, of not being able to utilize infested land with their selection of crops at all times, and in some cases reduced yields. In support of the total program effort my department submitted a substantial state funding request for the cooperative witchweed program. This request had one of the highest priorities from my department. The North Carolina legislature has not granted any expansion budget requests to state agencies; and therefore, our request suffers the fate of nearly all state funding efforts in these austere times.

The impact of decreasing federal funding from $4.7 million to $1.1 million in FY 1984 will be to limit the witchweed program to one of regulation only, with no survey, suppression, or eradication activity. With no survey and control activity, the presence or absence of witchweed would not be determined; as a result, regulated commodities could not be easily certified for movement out of the area. Only those products, farm tools, and machinery that can be washed free of soil could move, assuming that personnel are available to certify the articles. Regulated farm products include: peppers, watermelons, cucumbers, cabbage, cantaloupes, squash, tomatoes, snapbeans, corn and sorghum for grain, soybeans, peanuts, hay, sweet potatoes, Irish potatoes, field-grown ornamentals, and plant crowns and roots for propagation. The value of these products in counties known to be infested with witchweed exceeds $500 million per year (1979 values). In 1982, when the projected federal funding for the witchweed program for FY 1983 was $0.0, other states contacted the Departments of Agriculture in the infested states asking what counties, not farms, were infested to begin the process of individual state quarantines against the pest. With no control activity, witchweed plants would be allowed to produce seed. Witchweed would not be limited to a precise area as it has been. Spread would be inevitable, going from one field to another, to the rest of the state, to other states (witchweed can thrive under the climatic conditions of the corn belt region). Costs to control witchweed in the 80 million acres of corn, sorghum, and sugar cane produced in the United States would exceed $1 billion per year.

We have the technology to suppress and eradicate witchweed, and have made substantial progress in the last three years toward this goal. We can continue this progress with sufficient funding and rid North Carolina and South Carolina of this pest in a relatively short period of time. The present level of funding in the 1984 federal budget would allow witchweed plants to produce seed. To cut back on funding now would be economically unsound. It would be a giant step backward rather than just a delay in our fight against witchweed.

STATEMENT OF CLINTON HAROLDSON, PRESIDENT, WESMIN RESOURCE CONSERVATION AND DEVELOPMENT ASSOCIATION

From a humble beginning in March, 1963, when our RC&D Area application covered 430 square miles, the WesMin RC&D Area has expanded to cover nearly 21,200 square miles. WesMin ranks 1st in the nation in number of counties (23) and conservation districts (24) as sponsors; it is the 3rd oldest RC&D Area and 7th largest in size. WesMin encompasses 26 percent of the counties in Minnesota and 25 percent of the state's area; it has 40 percent of the state's 15,291 lakes of 10 acres of more in size, and 30 percent of the state's surface water area. WesMin farmers produce 48.4 percent of the state's sunflowers, 40 percent of the state's sugar beets, and has 44.6 percent of the irrigated acres.

The accomplishments of RC&D organizations, and WesMin in particular, continue. Each year documents the wisdom of an action program having a broad base of local leadership and participation, imaginative thinking, and a cooperative spirit in agencies, groups, and individuals. We are grateful for this cooperation with WesMin.

Progress has been made in accelerated soil surveys, erosion and sediment control, water availability, and water quality management within the WesMin area. We have achieved many of the goals on a state level, but we need to improve the protection of productive ag-lands, processing and marketing of crops, management of forest lands, and utilization of forest products.

On January 12, 1983, WesMin celebrated its 20th Anniversary. Between 1963-83, we have adopted 435 RC&D measures and completed 207 for a 46.6 percent completion rate. RC&D financial assistance on completed projects represents 2.6 percent of the total $79.9 million invested in WesMin RC&D activities. Local groups and organizations have invested $28.9 million in these completed measures, while state and local governments invested $20.8 million. Each dollar of RC&D cost-sharing resulted in 35 dollars of investment from other sources in completed RC&D measures.

Unfortunately, our effectiveness is continually measured by conventional program "yard sticks". The RC&D Program is not a conventional agency program. It is a unique coordinating program, managed and directed at the local level, and brings together programs and services in the rural areas to help people help themselves. The RC&D Program has the capacity for planning and implementation, and enables others to state they solved the problem. But RC&D made it possible to happen. And you people in Congress helped local RC&D organizations make it happen!

During 1983 we have four RC&D measures under construction and three planned for construction to start. In 1984, we have three measure planned for construction and five measures in 1985. Planning these measures involves 1-2 years and construction may be phased over 1-5 years, depending on complexity and costs.

It is essential that we maintain our effective rural development RC&D Program. We have excellent working relations with local governments via this program.

RC&D financial assistance to WesMin in 1982 was considerably less than in previous years. We have had the benefit of a full-time Coordinator and at least one resource specialist during most of our 20-year existence. Now SCS wants to terminate the resource specialist position in October, 1983. This will have a very serious impact on our effectiveness.

Therefore, we request RC&D Program funding for 1984 at $50 million. We request Congress reject the Reagan Administration's proposal to phase-out the RC&D Program.

We gratefully acknowledge the contribution Congress has made to our success. We live in exciting times of change and progress. We invite you to join with us to accomplish new and greater achievements.

STATEMENT OF KENNETH H. KAHAO, PRESIDENT, AMERICAN SUGAR CANE LEAGUE

I appreciate having the opportunity to present the position of the American Sugar Cane League regarding U.S.D.A., A.R.S. sugar cane research. The League's membership includes over 95% of the 4,000 Louisiana cane growers (including landlords who receive a share of the crop), and factories which process the cane into sugar and molasses. Twenty-one such factories operate in Louisiana.

The League does for growers and processors that which it would be difficult for them to do as individuals. We help to promote, improve, advance, and protect the Louisiana sugar cane industry. The League cooperates with and helps to finance sugar cane research with the Louisiana State Experiment Station and the U.S.D.A. Sugar Cane Field Station at Houma, Louisiana. A substantial portion of our budget goes toward sugar cane research.

Research conducted at the A.R.S. facility in Houma can have applications in all cane producing states and among sugar cane producing countries around the world. For example, sugar cane varieties developed under the A.R.S. program are either grown or used for breeding purposes in each cane producing state and by many foreign sugar cane producers.

Our industry has a good working relationship with the sugar cane researchers. We have no qualms about providing either praise or constructive comments about such research as the situation warrants. We strongly support the direction of the current sugar cane research program and the way it is being carried out. Our support is evidenced by this statement in favor of continued funding, the research cooperation between our organization and the U.S.D.A. personnel, and by the substantial financial contribution the League makes to the Houma station in spite of our own limited resources.

Sugar is one of the few food commodities that we import instead of export. Without a domestic sugar industry to provide a major portion of our sugar needs, U.S. consumers would be at the mercy of volatile world prices and unreliable foreign suppliers of sugar. Domestic sugar producers must become more efficient to continue to compete against the unfair trade practices of many foreign producers! The free trade advocated by many simply does not exist in the world sugar market. We must strive for fair trade and increased production efficiency. The only way for us to become more efficient is through a strong, long-range research program and wise application of the research to everyday operations. Such improved efficiency benefits the consumer, the producer, and society as a whole.

The A.R.S. sugar cane research program has been quite productive over the years. Therefore, we are disturbed that A.R.S. is planning redirections of agricultural research for all commodities that would deemphasize research on crop breeding, crop production, and crop protection. "Basic" research would be emphasized at the expense of "applied" research.

I offer the following points regarding redirection of A.R.S. research:

(1) Close consultation with research users should be held before any drastic changes are made. No such changes should be made without the approval of Congress.

(2) De-emphasizing A.R.S. research on variety development, crop production and crop protection will be harmful to American farmers who need such research to improve their disastrous financial situation. The proposed redirection appears to move A.R.S. away from their natural constituency of farmers.

(3) A.R.S. emphasis on "basic" research places pressure on universities to conduct more "applied" research at the expense of their own "basic" research. Both A.R.S. and the universities should conduct balanced programs, but the argument can certainly be made that universities are the natural location to emphasize basic research due to the availability of facilities and personnel from differing disciplines.

(4) Farmers and farm organizations may not identify as closely with basic research as they do with applied research, thus lessening their active support for funding of a strong agricultural research program.

(5) If further U.S.D.A. efforts are deemed necessary in basic research nutrition, commodity conversion, etc., such funds should be sought from Congress. Such added research should not be funded at the expense of proven, successful research programs that meet the approval of research users. Perhaps added funding could be sought for items such as nutrition research from the huge Department of Health and Human Services budget.

We are already disturbed regarding A.R.S. sugar cane research redirections recently announced for Mississippi, Hawaii, and Florida, as well as in Baton Rouge, Louisiana. We fear that further redirections that appear possible under the A.R.S. 6 - Year Implementation Plan could cripple a very effective A.R.S. sugar cane research program.

A.R.S. administrators evidently believe that if A.R.S. moves out of certain research, commercial concerns, universities, or user groups will take up the slack. That is not necessarily true. For example, commercial development of sugar cane varieties has been tried and has failed. Sugar cane is vegetatively propagated - cane stalks are planted instead of seeds. Therefore a farmer only needs to buy "seed" cane of a new variety one year. In future years he simply uses his own cane for planting purposes. A commercial "seed cane" enterprise could not operate profitably under such conditions. Universities are already under state budget pressures, so they could not replace the A.R.S. program. Louisiana State University has already experienced budget cuts, and further cuts are expected. In sugar cane an individual state could not conduct the entire variety program. Due to climatic conditions all mainland cane states depend heavily on U.S.D.A. facilities in Florida for initial crossing work. Our own organization spends substantial amounts of money on research, but does not have available resources to take over the A.R.S. program at Houma. It is therefore dangerous to assume that if A.R.S. abandons certain important research, it will automatically be carried on by others.

Most of the research at the Houma facility is long-range, high-risk, and of use to sugar cane growers in all cane-producing states and many foreign countries. The cooperative relationship between U.S.D.A. scientists, L.S.U. scientists, League scientists, and Louisiana sugar cane growers is a good example of how an effective research program should work.

Although the League represents the Louisiana industry, and is especially concerned about the research at Houma, we are also concerned about A.R.S. efforts at other locations in Florida, Texas and Hawaii. Sugar cane research is unusual in that certain research is best conducted at certain locations, but it can have application to all locations. Therefore, to cripple the program at any one location hurts the entire domestic sugar cane industry.

We are proud of the A.R.S. sugar cane research program. It has done, and is doing, a good job. Major changes are not needed, and indeed, would probably be harmful. We urge you to study carefully any plans by A.R.S. to change the direction of agricultural research.

SUMMARY

The American Sugar Cane League strongly urges continued funding of the U.S. Sugarcane Field Laboratory at Houma, La. at the level of $1.318 million recommended by the Administration for Fiscal Year 1984.

Project numbers for research involved are:

(a) CRIS # 7412-02010 (Location Support)
(b) CRIS # 7412-20090-006 (Sugar Cane Breeding)
(c) CRIS # 7412-20090-007 (Basic Sugar Cane Breeding)
(d) CRIS # 7412-20090-008 (Disease Control)
(e) CRIS # 7412-20090-009 (Sugar Cane Quality)
(f) CRIS # 7412-20090-010 (Sugar Cane Production)
(g) CRIS # 7412-20090-011 (Sugar Cane Diseases and Varieties)
(h) CRIS # 7412-20240-004 (Sugar Cane Insects)
(i) CRIS # 7412-20280-002 (Sugar Cane Weeds)
(j) CRIS # 7412-20280-003 (Sugar Cane Weeds)

The League also strongly questions the proposed redirection of research under the A.R.S. 6 - Year Implementation Plan. The League urges that no such unilateral redirection of sugar cane research take place. Such redirections should meet the approval of the research users and Congress before being implemented.

I appreciate the opportunity to present our views.

STATEMENT OF CLARK CRONQUIST, PRESIDENT, NORTH DAKOTA RURAL WATER SYSTEMS ASSOCIATION

Mr. Chairman, my name is Clark Cronquist and I am the President of the North Dakota Rural Water Systems Association and on the Board of Directors of the National Rural Rural Water Association. We are appearing before your Committee to thank you and the other Committee members for the annual appropriation you have provided for the FmHA rural water and sewer grant and loan program. This program is critical to the backbone of economic development and the quality of life in rural America.

The other program we want to thank you for is the rural water Circuit Rider training and technical assistance program. We want to report that the Circuit Riders in the twenty-six states have made over 12,054 grassroots technical assistance visits to small rural water systems the past year. More important, these visits have generally been to those small systems with the most severe rural water problems and have resulted both in reduced cost of operation, maintenance and capital costs and in improved compliance with the Federal Safe Drinking Water Act. We strongly believe that this is the case of the right program at the right time to assure that our rural families have clean safe drinking water.

Our time is short and I would like to mention two examples of the appropriateness of this program.

1) The first is that the compliance of small water systems with the Federal Safe Drinking Water Act is improving in those states with Circuit Rider programs. Those small systems that no one could reach in the past are being helped.

2) The recent National Rural Strategy by the FmHA establishes the need for technical and management assistance to rural areas as a top priority of this Administration. We believe that we have the model grassroots technical assistance program in rural areas.

Included with our testimony is a summary of the Circuit Rider visits carried out in the twenty-six states during the period January through December 1982. We know some of the members of the Committee have visited with the Circuit Riders in the field. We invite all of you to come spend some time with a Circuit Rider while he visits a small rural water system. We believe you will appreciate the value of the direct relationship between the Circuit Rider and the water system and the success this hands-on approach has in solving small system problems.

We are requesting that the Committee include the Circuit Rider program in the FY 84 appropriations for the Farmers Home Administration. This excellent program is underway and it has improved the effectiveness and efficiency of small rural water systems in these twenty-six states. We urge you to continue the program for the next year.

We have another request we would like to bring before the Committee:

It has become clear that Federal assistance for small water system construction will be limited in the future. However, sources of funding for rural water systems other than the FmHA rural water grant and loan program are becoming more available. State governments are passing revenue bond programs, the HUD Community Development balance of state funding is more available to small water systems and new initiatives for increased private financing are underway. States, other Federal agencies and private groups ask hard questions on the scope and nature of rural water systems and their needs. Our problem is that there is no accurate and complete inventory of the over 25,000 new rural water systems assisted through the FmHA nor of the vast number of formerly private systems that have become public utilities.

There is an immediate need to obtain and catalogue the information on the location, size, funding, operation and management and water supply and treatment of these systems. If we are going to obtain additional financial support from state governments we must be able to explain to the states what is there and what more is needed. Earlier studies by other associations have not provided this information. Other studies by EPA have highlighted the extent of drinking water non-compliance but have not provided information of the location, operation and needs of rural water systems.

We urge the Committee to consider the inclusion of $800,000 in the FmHA budget to initiate the first stage of a three-year study to identify, inventory and assess the status and needs of rural water systems, rural water supplies and potential new funding sources for rural water system construction. An approach for such a project has been proposed to FmHA, but has been held up pending a review of available funds. Last year the FmHA returned $800,000 to the Treasury from the Circuit Rider program because of new administrative rules enacted by OMB. We urge the Committee to provide that $800,000 to fund this first stage of a comprehensive national water inventory study which will provide the information necessary to expand the funding for small systems from state and local governments and private resources.

CIRCUIT RIDER TECHNICAL ASSISTANCE VISITS
January - December, 1982

	TOTAL VISITS	For OPERATION & MAINTENANCE	For MANAGEMENT & FINANCE
ALABAMA	400	319	81
ARKANSAS	497	278	219
FLORIDA	488	425	63
ILLINOIS	296	281	15
INDIANA	584	466	118
IOWA	410	339	71
KANSAS	437	263	174
KENTUCKY	597	581	16
LOUISIANA	498	394	104
MAINE	467	403	64
MINNESOTA	300	239	61
MISSISSIPPI	660	582	78
MISSOURI	495	475	20
MONTANA	492	445	47
NEBRASKA	459	321	138
NEW MEXICO	455	322	133
NEW YORK	409	407	2
NORTH CAROLINA	333	232	101
NORTH DAKOTA	461	432	29
OHIO	629	425	204
OKLAHOMA	422	217	205
OREGON	552	535	17
SOUTH CAROLINA	388	373	15

	TOTAL VISITS	For OPERATION & MAINTENANCE	For MANAGEMENT & FINANCE
SOUTH DAKOTA	295	260	35
TENNESSEE	560	550	10
TEXAS	470	208	262
	12,054	9,772	2,282

Statement of Peggy McNeill, Chairman, Mid-Atlantic Resource Conservation and Development Association

I am Peggy McNeill, Chairman of the Mid-Atlantic Resource Conservation and Development Association and Secretary of the South Jersey Resource Conservation and Development Council. I am also a supervisor of the Mercer County, New Jersey Soil Conservation District and President of the Board of Directors of the New Jersey Association of Conservation Districts.

As Chairman of the Mid-Atlantic Resource Conservation and Development Association, I want to thank you Senator Thad Cochran and your committee for supporting the RC&D program, which is a community orientated program that provides jobs to men and women in the six states and 20 RC&D areas in the Mid-Atlantic Region. Women and minorities have benefitted from this program which has made money available to create jobs and to get jobs done that have been there for quite sometime. The RC&D program can coordinate activities that mobilize rehabilation efforts that halt the decay of our crumbling infrastructure that ties us together by highways, railroads, water-supplies, and flood control dams. This type of legislation shows the foresight of your committee to address a serious national problem through an existing program, namely RC&D.

I live within a geographical area that contains one-sixth of the United States population, as well as a substantial suburban and rural population. RC&D's biggest impact has been in the rural areas where the economy is not usually at its best. RC&D not only created higher community self esteem, but it provided jobs while providing soil, water and natural resource programs.

Each of the 20 RC&D areas in the Mid-Atlantic Association have plans that define different environments and situations within the area and identifies unmet needs and problems that underly those needs. When RC&D acts as a catalyst through what are called associated measures, opportunities for change start to happen and these opportunities can mean jobs. In one RC&D area, over 25 local, regional and state organization provide technical and financial assistance through RC&D leadership. One such project that I know of helped in revitalizing shellfish industry. Through RC&D and the cooperative efforts of other agencies over 340 jobs were saved and 60 new jobs were created when the improvements lead to a processing plant staying in the area instead of searching for a new location. A similar project is now being planned for Port Norris, New Jersey which is an economically depressed area that will benefit from RC&D's coordination efforts.

Many "spinoff" benefits are gained by communities in RC&D areas. In South Jersey, retired citizens work in the RC&D office through the Green Thumb Programs. Green Thumb advisors have worked with the RC&D coordinator to seek out new ideas for small income producing businesses for retired citizens living on fixed incomes. Workshops and seminars are held for to address community needs. In the Little Kanawha RC&D area in West Virginia, workships in Grantsmanship, Solid Waste Recycling, Christmas and Fruit tree growing as well as establishing an information program amoung local bee keepers were held. You may not realize it, but the 600 honey beekeepers in this RC&D area are only a fraction of the 200 thousand beekeepers in the U.S. who produce nearly 200 million pounds of honey and bees wax.

Each RC&D area and project coordinator, where they have one, have continued to operate a dynamic and successful program in spite of the constant threat of budget reductions. Budget reductions have meant fewer coordinators and the lack of clercial staff to assist coordinators where they exist. We have projects on the shelf ready to go, but need financial and technical dollars. Nationally, there are 194 RC&D areas that have a combined total of 1,096 signed measure plans of which only 406 have construction started. The budget for FY 1983 is $25.7 million of which 56% will be used for Technical Assistance and 44% will be used for Financial Assistance. As you know, we urged support of a $50 million level of funding for FY 1983.

Regardless, we are back again, even after attempts by several administrations to phase out the program, to support your actions Senator Cochran and the action of 194 other RC&D areas who say we have jobs to give and plenty of jobs to do. RC&D is a Catalyst that is in place already that can help the nation by stimulating economic development through Soil and Water Conservation programs.

Thank you Senator Cochran, I know of and appreciate your strong support of RC&D.

Statement of John Prevette, Chairman, Mid-East Resource Conservation and Development Council

April 4, 1983

Senator Thad Cochran, Chairman
Subcommittee on Agriculture, Rural
 Development and Related Agencies
1320 Dirksen Office Building
Washington, D. C. 20510

Dear Senator Cochran:

The Resource Conservation and Development (RC&D) Councils of North Carolina respectfully requests this letter be entered into the official hearings for appropriations by the Subcommittee on Agricultural, Rural Development and Related Agencies. The RC&D Councils of North Carolina support and recommend that appropriations for Resource Conservation and Development Program be approved for $34 million for FY-84 and that language be included to prevent funds being used for phase out.

The RC&D Program is run by local people with technical assistance from Soil Conservation Service. The local people are proud of the RC&D Program. It is one of the few government supported programs that grassroots people play the major role. The Farm Bill of 1981 provided a legislative base for the program if Congress will tell the Administration to implement as outlined in the bill. We encourage you to do so. The Administration is proposing "0" budget for FY-84 and a phase out of the program.

The RC&D Councils have measures in progress which will need adequate funding for completion. There are some 16 measures for erosion control (estimated $338,000), 15 flood prevention and land drainage measures (estimated $946,000), 4 public water-based recreation and fish and wildlife development measures (estimated $352,000). These are a few examples of measures underway. The major objective of RC&D Councils is to help local people solve their problems. Local people have contributed millions of dollars in time inputs as community leaders to plan, install, operate and maintain RC&D measures. The program is not just a cost-share program, it is a means of self-government by people working together to solve local problems.

The RC&D Councils of North Carolina request your support to keep the RC&D Program alive and active to complete the much needed goals in our State.

Thank you for your efforts and consideration of our requests.

Sincerely,
John Prevette
John Prevette
Chairman, Mid-East RC&D Council
North Carolina Representative, Southeastern
 Association of RC&D Councils.

Statement of William F. Wood, Chairman, National Association of Agriculture Employees

My name is William F. Wood and I am chairman of the National Association of Agriculture Employees. I appreciate this opportunity to outline very briefly a few of our concerns about the problems we see facing the effectiveness of the APHIS program in USDA.

We are members of the National Association of Agriculture Employees and our Employer is the United States Department of Agriculture, Animal Plant Health Inspection Service, Plant Protection Quarantine. Our job is protecting American Agriculture. We are assigned to airports and sea ports where there are international arrivals of cargo and passangers. We inspect and certify for movement into the United States billions and billions of dollars worth of cargo every year. Too, we inspect handbags and luggage of passengers coming into the United States. In the inspection process we find insects and disease of plants, man, and animal not known to be established in the United States. Our jobs are very essential to protecting American Agriculture. We know that you are aware that the dreaded Med

Fly some way and some how got through and got established in California and the cost to eradicate the Med Fly was over 100 million dollars of the U.S. Taxpayers money. The Med Fly is an example of what our jobs are once a foreign insect or disease that threatens to destroy American Agriculture gets through and gets established on our shores. We have some insects and diseases that we are working on now and hope that we can eradicate them as we did the Med Fly in California. We know that you are our friend and that you understand our plight and we need your help and support to get the needed funds back into the Fiscal year 1984 budget for us to do our jobs and protect our multi-billion dollars agriculture. We recommend that funding be not less than the Fiscal year 1982 budget. Too, we recommend that the Fiscal year 1984 budget include money to upgrade all our Officers to GS-11.

Senator, it is indeed sad to say the very least in that our Plant Protection Quarantine Officers have not been upgraded since the years of 1958 and 1959. Management within other agencies within the Department of Agriculture have upgraded their employees jobs from GS-9 to GS-11. These are jobs that parallel our jobs but do not have the responsibility that we have. In 1958 and 1959 when we were upgraded from GS-7 to GS-9 we were assigned to Agriculture Research Service and when Animal Plant Health Inspection Service was formed, we were assigned to this newly created agency. What we have observed and you will find to be factual is our managers have moved up the ladder to higher and higher positions and more and more pay. The top managers and middle managers now get their high salaries and also get a big honus under the Civil Service Reform Act. Managers now are paid salaries from 60 to 70 thousand dollars annually plus bonuses and in cases the bonus is 10 thousand dollars.

All of the managers would not exist unless we do the work and give it to them to support them. We are not making a fair and just living for ourselves much less our families at our present salary level of GS-9.

We regret very much having to come to you to ask you to do all you can to help us get our jobs upgraded from GS-9 to GS-11, but after waiting for over ten years for our managers to upgrade our jobs we have no other choices other than to ask you to help us along with our other friends in Congress. We have gone through the appeal process and we were shot down by our managers. We sincerely hope and pray that you will understand and that you will help us.

Another thing that is of very much concern to us is our Civil Service Retirement System. We do not feel that there should be any change in our Retirement System. This is one of the major things that enticed us to work for the U. S. Government. There are so many unknowns in the private sector Retirement Systems and we could see at a glance what the Government offered. There is no better retirement system for Government Employees than we presently have. Some in the Private Sector now far exceed our Civil Service Retirement System and what we want is a better Retirement System not less as has been proposed. We will appreciate any help that you can give us to keep our Retirement System as it is without any changes except for a better retirement system.

In addition, Mr. Chairman, we are greatly concerned about the funding levels for many of the APHIS programs for fiscal year 1984. We would urge your committee to maintain funding for these extremely important functions at or near the levels funded in 1982 and 1983. I need not tell you the importance that American agriculture plays in both our domestic economy and as a provider of food and fiber for the world population. It is crucial that we continue to protect our ability to produce through effective, efficient, well-managed and staffed programs in the Animal Plant Health Inspection Service.

LETTER OF HON. MICHAEL S. DUKAKIS, GOVERNOR OF THE COMMONWEALTH OF MASSACHUSETTS

February 3, 1983

James B. Grant, Executive Secretary
National Association of State
Departments of Agriculture
1616 H. Street, N.W.
Washington, D.C. 20006

Dear Mr. Grant:

This letter is addressed to you with my request that you forward it for reading and inclusion at the Budget Hearing for Agriculture.

It has come to my attention that USDA seeks to divert $20 million presently appropriated for Brucellosis to other uses.

I believe I speak for all New England Governors in my opposition to this. I know I speak for myself, for Food and Agriculture Commissioner Frederic Winthrop Jr., and for all the members of his Veterinary and Regulatory staff in opposition to any re-allocation (or reduction) of Brucellosis funding.

Massachusetts is currently the only "A" Status state in the northeast. We confidently expect to reach Free Status on June 1st. next. We are proud to be able to say this, and everyone staff and farmers alike, has worked unceasingly to attain it. But it has not been cheaply achieved, either in money or manpower. Three-quarters of a million dollars has been spent in indemnities alone here. Four years ago we were spending almost a hundred professional and technical manhours a month on one herd alone. We no longer have an indemnity account. We can no longer spend this much in personnel cost on one disease, on one farm. Put simply; we are approaching Free Status. We must remain there.

As an importing state, we depend heavily on the federal government to maintain the proper disease control methods and surveillance to keep us disease-free. If you re-allocate, or severely cut back the federal funding for Brucellosis the disease will certainly reappear here. Neither the federal government, nor the Commonwealth of Massachusetts, nor our export market can possibly afford this.

Yours truly,

Michael S. Dukakis

LETTER OF JOHN W. STALLINGS, CHAIRMAN, NORTH CAROLINA ASSOCIATION OF SOIL AND WATER CONSERVATION DISTRICTS

April 4, 1983

Senator Thad Cochran, Chairman
Subcommittee on Agriculture, Rural Development
  and Related Agencies
1320 Dirksen Office Building
Washington, D. C. 20510

Dear Senator Cochran:

The Resource Conservation and Development (RC&D) Committee of the North Carolina Association of Soil and Water Conservation Districts respectfully request this testimony be entered into the records and minutes of the hearings for the Subcommittee on Agricultural, Rural Development and Related Agencies.

The Association's RC&D Committee recommends that the RC&D Program be carried out as authorized in the 1981 Farm Bill. The Administration did not take any steps to do so during 1982.

The RC&D Program in North Carolina covers 40 percent of the State. It is a local run program with voluntary people giving of their time, effort and resources. We have completed numerous good RC&D measures since RC&D was approved in North Carolina in 1967. We thank you for supporting the program in the past.

The Administration is recommending a "0" budget and phase out for FY-1984. The N. C. Association of Soil & Water Conservation District requests a minimum of $34 million be appropriated with language included for funds not to be used for any type phase out of the program. The seven (7) RC&D areas in North Carolina have RC&D measures in progress that will depend upon adequate funding to complete. There are 17 measures for erosion control (estimated $347,000), 14 flood prevention and land drainage measures (estimated $905,000) and 5 public water-based recreation and fish and wildlife development measures (estimated $396,000) are but a few examples.

I have been involved in the RC&D Program since 1972 and have heard many testimonies from local citizens on the effectiveness of the measures completed in the local communities. The results have meant improved health conditions, improved job opportunities, improved cropland conditions, water quality and public access to waters for private and commercial uses in our rural areas. The attitude of the local people, helping each other, has been impressive!

The local people of North Carolina RC&D areas hope you share their concern and enthusiasm for the RC&D Program and will lend your support for the above requests as you have done in the past. I look forward to hearing from you upon this request.

With best regards, I am

Sincerely,

John W. Stallings

Letter From Charlie Hurd, Washington Legislation Committee, American Honey Producers Association

Senator David Durenburger
U.S. Senate
Washington, D.C. 20510

March 10, 1983
Box 35
Kasota, Minn 56050

Dear Senator Durenburger,

This is a letter asking for your support in several matters that concern the beekeeping industry. I have been asked to represent the industry viewpoint by the American Honey Producers Association.

Bees have a unique place on the United States' agricultural scene. Through their pollination they make hybrid crops possible. The U.S.D.A estimates that for every dollar's worth of honey produced, bees do one hundred dollars worth of pollination.

In Minnesota, bees increase yields in many fruits and vegetables. Research now shows that they are increasing soybean and sunflower yields. In most cases farmers do not pay for pollination. Beekeepers provide bees in exchange for the honey crops that they may receive.

We have problems. The importation of cheap honey is pressuring an industry that has been struggling for years with low prices.

Last year seventy million pounds of honey was imported. There were also about seventy million pounds of honey placed on loan with the Commodity Credit Corporation. Most of this honey will be forfeited to the C.C.C. in lieu of loan repayments. Honey packers are buying cheaper foreign honey and beekeepers are forced into the program. The support price is now set at sixty percent of parity.

We are asking that you co-sponsor a bill that is being intruduced by Senator Larry Presler. His bill raises the tariff on imported honey.

Normally I would not expect you to support tariffs and neither do I, but the values of the beekeeping industry and its pollinating bees are too great to neglect.

We are also asking you to continue your support for the honey loan program. There will no doubt be tremendous pressure to cut this program in the near future. Without the program prices would probably drop by one-third. Beekeepers are already in a marginal situation and could not survive a drastic price drop.

We would also like to convey to you our support for the Laramie Wyoming Bee Research Laboratory. This lab is scheduled to be closed. The primary purpose of the lab is to study bees in relation to crops and pesticides.

In Minnesota, beekeepers have been experiencing pesticide losses each year. I lose from between ten to thirty percent of my bees each year due to pesticide spraying. Through more research we hope to find an answer to the pesticide problem. I am enclosing a copy of reasons why the Laramie Lab should remain open. This facility is important to Minnesota beekeepers.

We are asking that you support a hearing on the status of the lab before Senator Thad Cochran's committee.

Thank you for considering the interests of the Minnesota and national beekeeping industry.

Sincerely,

Charlie Hurd
Washington Legislation Committee A.H.P.A.

REBUTTAL TO THE PROPOSAL TO RELOCATE THE HONEY BEE LABORATORY
LARAMIE, WYOMING

CRITICISM: *Improve efficiency and effectiveness of operations by locating research within the problem area and by close association with related scientists; equipment and facilities.*

REBUTTAL : The Agricultural Research Service has a modern well-equipped laboratory in Laramie, Wyoming. This laboratory was designed specifically for pesticide analyses and research. Moving the operation to Tucson, Arizona would not improve the lab's efficiency, but instead would disrupt the current productive research program at Laramie. The result would be less efficiency for one or more years, assuming that the pesticide program would continue to be funded and "survive" in Tucson.

The main honey bee/pesticide problem for Arizona beekeepers relates to growing western cotton in irrigated areas and does not represent the research needs of other parts of the nation. In recent years, staff members at Tucson travel to Texas and Idaho to conduct pesticide (minor project) and pollination research because the Tucson area (and Arizona in general) lacks a variety of agricultural crops and has a heavy level of pesticide background from cotton. The Tucson lab is now in a highly urbanized area and within one block of a major hospital. Under such conditions, field studies, near the laboratory, with bees are nearly impossible.

State-sponsored bee research in California deals with local and state problems. Some of this research relates to problems of the desert southwest which applies directly to Arizona's pesticide problems. If the Laramie pesticide projects were moved to Tucson, it would, in many cases, duplicate work being done in California.

The pesticide problem areas for pesticide research are not only located at Tucson, but instead cover a wide variety of agricultural communities nationwide. Laramie is in a better geographical location and more centrally positioned to address national pesticide problems than is Tucson.

The primary mission of ARS is not intended to serve local or state problems at the expense of national problems (Office of Technology Assessment, Congressional Board of the 97th Congress). The cotton-citrus/honey bee problems in Arizona are mainly local or state problems. The concept of moving the Laramie Lab has been promoted by one or two Arizona beekeepers.

The ARS Bee Laboratory at Laramie, Wyoming is located on the campus of the University of Wyoming where the staff enjoys daily contact with the University faculty, especially in the disciplines of entomology, biochemistry and statistics. This close relationship has existed since 1926 when the Laramie Lab was first established. In contrast, the ARS Bee Lab in Tucson is not located on a university campus and does not benefit from daily contact with the faculty at the University of Arizona.

CRITICISM: *Cost Savings. The purpose of the transfer is to increase the efficiency and improve the effectiveness of the research program on pesticide problems involving bees.*

REBUTTAL: Transferring the Laramie facility to Tucson will not increase efficiency nor reduce operational costs. At Laramie, the University of Wyoming provides all office and laboratory space at no cost to ARS. The University also provides free utilities (gas, electricity, heat and water) and free janitorial service. The buildings at the University of Wyoming are well constructed and energy efficient. The Tucson facility is owned by the federal government. ARS pays for all maintenance, utilities and janitorial costs at the Tucson Lab. Adding a larger staff to the Tucson Lab would increase the cost of operating that facility. Consequently, a move to Tucson would cost ARS additional money each year in addition to the cost of moving the laboratory staff.

CRITICISM: *Arizona is one of the areas where bees suffer major loss due to pesticides.*

REBUTTAL: Arizona is one of 50 states, most of which have honey bee/pesticide problems.

CRITICISM: *The Tucson Laboratory is a major center of expertise in bee research and has conducted some research involving pesticides.*

REBUTTAL: The Laramie staff (and laboratory) is also a major center (one of six) of expertise in bee research and has accomplished a large amount of pesticide-related studies.

In 1978/1979 the National Program Staff specialist for bees insisted that the pesticide research being conducted at the Tucson Laboratory (all were minor projects) be transferred to Laramie because the primary mission at the Laramie Lab was, and still is, pesticide research! In conjunction with the consolidation of pesticide research at Laramie, Wyoming, the U. S. Congress "earmarked" a $250,000 appropriation in the mid-1970's to cover this research.

Until 1979 the pesticide studies at Tucson were under the direction of Dr. Roy Barker who elected not to move to Laramie, and subsequently took early retirement from ARS when pesticide research was moved to Laramie. The pesticide research at Laramie has been highly productive, culminating in many scientific publications and the earned respect and support of the beekeeping industry. Now, the Laramie program that was supported by Congress is being recommended, by ARS leaders. for relocation at Tucson.

CRITICISM: *The move will permit the scientists from Laramie to capitalize on expertise at the bee center, eliminate potential duplication of effort, and work in an area where the problems being studied actually occur.*

REBUTTAL: The Laramie staff has as much bee expertise as the Tucson personnel, and, in some cases, more years of professional experience. No duplication of effort exists nor will exist because the Laramie Lab is assigned pesticide research, and the National Program Staff for bees specifically instructed the Tucson staff that they were to confine their studies to pollination and bee nutrition.

CRITICISM: *There will also be some cost efficiency through sharing of equipment and supplies, an extremely important consideration at a time when the cost of conducting research has been escalating rapidly.*

REBUTTAL: The Laramie group has specialized equipment that has already been purchased and not available at Tucson, therefore combining the two groups would not save money or increase efficiency. The need for expendable supplies would remain the same whether the two groups were combined or left separated. Combining the two groups will increase operating costs. Separate research groups including small laboratories, have traditionally been more productive in the amount of research accomplished than have large laboratories.

CRITICISM: *These studies have been seriously weakened by the omission of studies on the biochemical and physiological events that occur during and after exposure. If moved to Tucson, Arizona these difficulties would be eliminated. Cooperative studies on bee exposure in fruit orchards, citrus groves, cotton and vegetables are conducted, but at considerable travel costs because most work is in Arizona.*

REBUTTAL: This is a false statement! Physiological and biochemical studies at Laramie have delved into the enzyme systems of bees following pesticide exposure, the effects of sublethal exposure, modifications in the ultrastructure of bee cells following pesticide exposure, lipid composition of the bee cuticle, pesticide penetration of the body wall, long-chain hydrocarbon transport to and incorporation into the cuticle and pesticide translocation into glandular food of bees (viz. royal jelly).

There would be no advantage in moving these basic studies to Arizona. The biochemistry faculty at the University of Wyoming affords the Laramie staff greater scientific support than is available at the Tucson Lab. The Laramie staff has conducted cooperative research projects in Arizona as well as in Oklahoma, Texas and Wisconsin. Many field projects have also been conducted in the Colorado/Wyoming area. The most recent large-scale field project in Arizona was conducted by Stoner in 1979. There were small-scale field studies in Arizona in 1980/1981 by Ross. The cooperative work by Ross required only one trip to Arizona. The bulk of the research was performed by individuals in Tucson in consultation with Dr. Ross over the telephone. Frozen samples of bees and bee products were sent to Laramie for analyses. Most of this work dealt with local problems, that were of concern to a few Arizona beekeepers. In previous pollination research, the Tucson Lab has conducted cooperative studies in other states (e.g. California, Idaho and Texas). This was not considered a weakness in their program, but rather a desirable approach.

It must be pointed out that it is not necessary to travel from Laramie To Tucson to conduct meaningful pesticide research. These cooperative field projects were designed to combine some aspects of the Laramie program with other programs on a temporary basis to save money and to give geographical diversity to pesticide research. Now, those who have proposed the transfer to Tucson are using these cooperative projects in a negative way and as an assumed program weakness. This is not a correct statement of the reason for Laramie utilizing Tucson facilities. The mission of the Laramie Lab dictates that the staff conduct field research in many parts of the country in order to adequately address pesticide problems on a national scale.

CRITICISM: *Reference Lab space in the Biochemistry Building. This complex badly needs at least one more vented hood and some solvent storage cabinets. There has been joint use of the one vented hood by both University of Wyoming and USDA scientists where acids and organic solvents are both used, thereby causing some safety concerns.*

REBUTTAL: This is not an accurate statement! University personnel have not used the ARS hood for more than 1 1/2 years because all university laboratories in the Biochemistry Building have independently ventilated hoods. The Lab has adequate storage space for chemical solvents in approved cabinets. The Laramie Lab does need one additional hood, but this is not creating a safety problem, and simply demonstrates Laramie's need for additional funding. Safety problems do not exist in either the Bee Lab or their Pesticide Research Facility. The Bee Lab has a safety officer who frequently checks for potential safety hazards. In addition, both the University of Wyoming Safety Officer and the ARS Western Region Safety Officer periodically examine the research facilities.

CRITICISM: *Field studies must be conducted with the chemicals registered for use on the crops in the agro-ecosystems where the "bee kills" occur. The researchers that team up to identify how bees can be protected from insecticides need to work [illegible] from other disciplines.*

REBUTTAL: Part of the field research conducted by the Laramie staff does not require application to a crop. When crops are involved the staff needs a greater variety of crops than are available in

Arizona. Agriculture in Arizona is comprised mainly of citrus and cotton. Saying that scientists must always work with registered chemicals is NOT TRUE. Studies can be and are conducted using non-registered chemicals (even in field studies) under "special use" permits or on small acreages. The research team to study pesticides and protect bees is already working in Laramie. Moving to Tucson has no significance or advantage. The Laramie staff already cooperates with scientists in a multitude of disciplines, both within the Laramie Lab and with scientists at the University of Wyoming. The staff has access to scientists nationwide through telephone conversations.

CRITICISM: *Field studies are essential when the mission objective is "study the biochemical and physiological events occurring after exposure." Current travel ceilings are preventing meaningful, multilocation research where the problems are serious, such as the fruit orchards in Washington, the citrus groves of California, and the cotton fields of Arizona. The seriousness of the bee/pesticide problem in the southwestern area is illustrated by the fact that during the 1967-1978 period, about 40 percent of the beekeeper indemnification payments were made in California, Arizona, and Texas.*

REBUTTAL: A multitude of pesticide/honey bee problems exist in many states other than Arizona. Recently, Jim Powers of Powers Apiaries (one of the largest beekeeping operations in North America with honey bee colonies located in several States) said that after several years of honey bee losses in Arizona, they were now able to successfully keep bees in Arizona if the pesticide applicators treated the crop in the evening with one of the new synthetic pyrethroid compounds. Mr. Powers implied that the pesticide problem was virtually solved in Arizona.

Laramie is more centrally located to many pesticide problem regions than is Arizona, thus reducing the travel distance required for field studies.

CONCLUDING REMARKS

Some individuals want to promote the Tucson Lab at the expense of other programs. The reasons given may sound logical at first, but, upon examination, it is readily apparent that these "reasons" are short-signted in terms of the needs of the bee industry nationwide. Bee research as it relates to pesticide poisoning should not center around the cotton industry of Arizona.

Last year, when the suggestion for closing the Laramie facility (and moving the entire program to Tucson) was first presented, the primary reason given was to save money through more efficient use of funds. When this line of thinking was proven to be incorrect, the emphasis was then switched to other socalled "justifications." It is unfortunate that the authors of the proposal use reasons that are either incorrect or inappropriate. Presenting poorly conceived reasons demonstrates the complete lack of communication between the "backers" of this proposal and scientists at the Laramie Bee Laboratory and other supporters.

The proposal to transfer the Laramie program to Tucson has been disruptive to ongoing research. The entire effort has been extremely counter-productive in terms of solving honey bee/pesticide problems.

Finally, the isolation, elevation and climatic conditions of the Laramie Valley present an excellent area for the study of honey bee problems not considered feasible in other parts of the United States. The problems could include the various parasitic mites and African/Africanized honey bees. If the ARS/bee industry were to lose these facilities it would be expensive and difficult to re-establish a comparable laboratory.

HOW FARMERS CAN WORK WITH BEEKEEPERS AND HELP THEMSELVES

Farmers can attract beekeepers by creating an environment that is safe and productive for bees.

They should provide as much forage as possible for bees. Bees need wildflowers throughout spring, summer and fall to produce and maintain large colonies. Farmers can seed ditches, windbreaks, and corners of fields with clover seed mixes.

Stop blanket spraying of ditches and urge government officials to be careful not to destroy valuable honey bee plants. Tell them about the benefits of honey bee pollination.

If you feel you must spray for insect pests, contact your local beekeepers so they can protect their bees.

Eat honey!! A healthy bee and honey industry is good for the whole country.

POLLINATION VALUE

Most farmers realize that honey bees are good for agriculture. They know that bees are essential for the production of many fruit and vegetable crops such as apples, oranges, pecans, melons, cucumbers and strawberries. They also know honey bees are used for cross pollination in the production of hybrid sunflower and alfalfa seed. The value of insect pollinated crops is reported to be $4.5 billion.[1] Honey and beeswax produced are valued at $45 million. In other words, honey bee colonies are worth roughly 100 times as much to the community as they are to the beekeeper.

What most farmers don't know is that honey bees are making significant yield increases possible in SOYBEANS and SUNFLOWERS. Research is now available and is still being done that is proving the value of bees for increasing yeilds in these two crops.

DECREASING BEE COLONIES

The number of colonies of honey bees has been decreasing for the past two decades in the United States. Furthermore, colonies have been shifted to suburbs or are operated by large-scale commercial beekeepers. This situation has disturbed the more or less even distribution of pollinators across the countryside and has even created a serious deficiency in some areas.[6]

Honey yields in Minnesota fell to an all-time low of 43 pounds per colony in 1981.[7] Beekeepers feel lower yields are a trend. They feel that the intensive farming practices of the 1970's and early 1980's are cutting yields. Beekeepers are moving colonies away from intensively farmed areas and into wooded areas.

These new farming practices have eliminated many honey plants in fields and ditches. Heavier use of more potent insecticides has also forced yields and colony numbers down. Some areas have no honey bees at all due to beekeepers fear of insecticides.

HONEY BEES INCREASE SOYBEAN YEILDS 5.2 TO 16.3 PERCENT

Tests done for two years by Eric H. Erickson, researcher for the USDA showed yield increases in soybeans of between 5.2 and 16.3 percent on soybeans with honey bee pollination. Erickson found an increase in yield of 13.9 percent on Corsoy beans and an increase of 16.3 percent on Hark soybeans.[3]

Farmers will probably have varied yield increases due to honey bee pollination. The effects of weather, soil conditions and soybean varieties is not yet thoroughly researched.

Erickson did find that in southern Wisconsin the following varieties were most attractive to honey bees: Adams, Corsoy, Hark, Illini, Lincoln Wayne and Williams.[4]

HONEY BEES INCREASE SUNFLOWER YIELDS

Research by Basil Furgala University of Minnesota has shown significant increases in yeilds of sunflowers due to honey bee pollination.

The following chart shows percentage increases in yields of sunflowers that were allowed to be openly pollinated by insects.[5]

VARIETY	PERCENT YIELD INCREASE
Dahlgren 704	141
Interstate 7775	39
NK 212	99
NK 223	575
RBA Perodovik	1735
RBA 903	71
Sigco 430	70

The heads of plants in control plots were bagged with netted bags to prevent insect pollinations. Honey bees made up over 80 percent of the insect pollinators observed.

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1. Metcalf, C.L. and Flint, W.P. 1962 *Destructive and Useful Insects*. Ed. 4, 1087pp. McGraw-Hill N.Y. and London.

2. McGregor S.B. 1976 *Insect Pollination of Cultivated Crop Plants*. USDA Wasshington,, DC.

3. Erickson, E.H. 1976 Bee Pollination of Soybeans, Proceedings of Sixth Soybean Seed Research Conference 1976.

4. Erickson, E.H. 1975 Honey Bees and Soybeans, University of Wisconsin, Madison WI 53706.

5. Furgala, B. 1979, Unpublished research done at Waseca, MN, University of Minnesota.

6. McGregor, S.E. 1976 *Insect Pollination of Cultivated Crop Plants*. USDA Washington, DC

7. *Agri View*, February 8, 1982. Agricultural Statistic Service, St. Paul, MN

STATEMENT OF HON. JIM BUCK ROSS, COMMISSIONER, MISSISSIPPI DEPARTMENT OF AGRICULTURE AND COMMERCE

Mr. Chairman and members of the Subcommittee, I am Jim Buck Ross, Commissioner of Agriculture and Commerce in Mississippi and President of the National Association of State Departments of Agriculture. I am presenting this testimony on behalf of the National Association of State Departments of Agriculture. In the interest of time, I will summarize the testimony, but I respectfully ask that the full text of the testimony be made a part of the permanent hearing record.

The National Association of State Departments of Agriculture (NASDA) represents the departments of food and agriculture in the fifty states, the Commonwealth of Puerto Rico, and the U. S. territories of Guam, American Samoa and the Virgin Islands. These state and territorial agencies work very closely in cooperative partnership with the U.S. Department of Agriculture and the Food and Drug Administration. The federal budget has a huge impact on budget planning and program policymaking at the state level. This is especially true of programs that are carried-out on the basis of cost-sharing and cooperative funding and manpower agreements.

We will confine our testimony today to Federal/State cooperative programs in such areas as animal and plant health inspection, domestic and international marketing, meat and poultry inspection, and FDA contracts with the states.

BRUCELLOSIS

One of our foremost concerns is the proposed budget for the National Brucellosis Program in the Animal and Plant Health Inspection Service (APHIS). The Administration proposal calls for a $32.8 million reduction in program level. The remaining funds -- $50.6 million -- would not be sufficient to continue the eradication program. Instead, the program would shift to a containment strategy with emphasis on voluntary vaccination.

The Association continues to support a continuation of the aggressive and effective eradication effort which has succeeded in reducing the incidence rate to one third of its 1960 level. Our stepped-up investment in brucellosis eradication during the past seven years should not be jeopardized by a drastic shift in program emphasis. We therefore recommend the continuation of an eradication program funded at no less that the current year level of $83.4 million.

OTHER APHIS PROGRAMS

The Association has carefully reviewed the budget proposals for other animal and plant health programs, and we have a number of pressing concerns. In the first instance, the APHIS budget is largely predicated on the assumption that the States and producers are able to bear much, if not all, of the cost of many disease and pest containment and eradication programs. We disagree. The fiscal situation at the state level is very difficult, and most state agriculture agencies are facing signficant budget and personnel reductions. Producers are in even worse shape after three years of several depressed farm and ranch prices. Consequently, the elimination or drastic reduction of federal support may necessitate the virtual abandonment of eradication and containment programs -- in som cases jeopardizing years of progress and investment.

Secondly, the APHIS budget proposal would result in the termination of five federal quarantines--Gypsy moth, pink bollworm, imported fire ant, brucellosis and scabies. Lifting federal quarantines on such pests as pink bollworm, and gypsy moth will not only increase the risk of new infestations, it might also lead to the proliferation of state quarantines and to the detriment of interstate and foreign commerce.

Requirements for the movement of some plants and animals between states are now based on minimum standards relating to uniform rules and methods. If these uniform movement requirements are dropped as a result of the termination of federal quarantines, each individual state would probably implement its own restrictions on susceptible plants or animals from other states. This would cause serious economic difficulties in the case of brucellosis and gypsy moth, among others. Exports would also suffer because most foreign countries that buy plants, plant parts, livestock, meat and meat-by-products require certifications based on active and uniform eradication programs.

Mr. Chairman, the Association is especially concerned about witchweed, gypsy moth, pink bollworm, imported fire ant, noxious weed, and the grasshopper/Mormon cricket programs.

Witchweed: Witchweed is a serious parasite that causes losses amounting to approximately ten percent of the host crop's yield. It spreads rapidly and it is capable of infesting all corn-, sorghum- and sugarcane-growing regions of the U.S. Nevertheless, the budget proposes to end all treatment activities, and provide just enough funds to carry-on the regulatory program. The Association requests the full restoration of funding at the 1983 level ($4,723,000), and we further ask the Subcommittee to consider the need for a stepped-up eradication program beginning in 1984.

Gypsy Moth: Gypsy moth is being found throughout the U.S. There is ample evidence in the Northeastern States that this pest is capable of widespread destruction of deciduous trees and, possibly, some evergreens if the infestation is allowed to continue for several years. USDA and the States have maintained a quarantine and operated eradication programs against several isolated infestations. However, the Federal government has not taken action to regulate the movement of items that are primary carriers of this pest. The artificial spread of the gypsy moth will be difficult to check unless such action is taken.

The Administration now proposes to terminate the existing quarantine and eliminate nearly all funding for field work. This amounts to an abandonment of any meaningful effort against the gypsy moth.

We respectfully request sufficient funding for a stepped-up Federal quarantine that includes a regulatory program sufficient to prevent the spread of this pest. Meanwhile, the States will continue their efforts to suppress isolated infestations.

Pink Bollworm: The termination of the pink bollworm quarantine increases the risk of an infestation in the San Joaquin Valley and other uninfested areas. Without survey support from APHIS, States may have difficulty locating new or expanded infestations in time to effect eradication. Moreover, the funding cut jeopardizes APHIS's long-range plan for the pink bollwork-rearing facility in Phoenix, Arizona. We therefore recommend the restoration of funding for pink bollworm at the current year level of $2,393,000.

Imported Fire Ant: With respect to Imported fire ant, the budget proposes to discontinue federal survey and control work on the grounds that "the pest is now confined to the Southern States and new and effective pesticides are now available to the States and to farmers for use in controlling fire ant infestations." We submit, on the contrary, that no legal and economically practicable tools capable of stopping the spread of the fire ant exist at this time. However, we have made some progress toward the development of biological agents, and research efforts being undertaken at the ARS research facility at Gainsville, Florida and Gulfport, Mississippi should be continued and strengthened.

There is also an urgent need for a practical and effective quarantine treatment to permit regulated articles to move under reasonable conditions without spreading the infestation.

Noxious Weeds: The reduction of Federal funding for the noxious weed program would cause the elimination of suppression programs against common crupina, itchgrass, goatsrue and hydrilla. All four of these weeds are potentially serious economic risks to the plant industry of the United States, and all four can be totally eradicated at reasonable cost. Losses due to exotic weeds and the cost of control in the U.S. are estimated at $18 billion annually. Full funding of the Federal Noxious Weed Act is a wise precaution and a prudent investment. We therefore request no less that the current year funding of $789,000 for noxious weed suppression in 1984.

Grasshopper - Mormon Cricket: The elimination of Federal funding of the grasshopper/Mormon cricket program means that there would be no money to conduct survey work in the field. The lack of accurate surveys and the absence of APHIS/PPQ field personnel would severely limit our ability to respond to a serious outbreak if one should occur. The Association requests adequate funding to carry-on the grasshopper/Mormon cricket program at the current level of activity.

With respect to APHIS animal health programs, we have already indicated that brucellosis is our primary concern. Nevertheless, many other animal programs are vital to the welfare of our livestock and poultry industry and worthy of adequate funding. Specifically, the Association calls your attention to scabies, psuedorabies and tuberculosis. All these programs are currently scheduled for elimination.

MARKETING

There is no better method of boosting farm and ranch income than the expansion of markets for U.S. agricultural products. Farm prosperity increasingly depends on marketing systems that are modern, efficient, adaptable, and agressively competitive.

During the past decade, the Federal government, the States and the private sector have pooled their resources and expertise together in a number of innovative and promising cooperative ventures aimed at expanding our export markets. Some of the best examples of this partnership are the various cooperative programs funded in part by the Foreign Agriculture Service's export market development program. For example, FAS is working with our Association on a major export trade show that will open in Atlanta, Georgia in May of this year. The show, called the NASDA National Food and Agriculture Exposition, is backed by all 50 States. We anticipate at least 500 U.S. exhibitors, and 1,200 foreign buyers; and the show is expected to generate sales in excess of $100 million. This will be an on-going event held every two years in different regions of the U.S. We are making special efforts to recruit small- and medium-sized firms that have no previous experience in export marketing. Most of these firms deal in processed and consumer-ready products. We are confident that the Exposition will be a major factor in the expansion of overseas markets for value-added agricultural products.

The Exposition would not be possible without FAS financial support. This is just one of several highly promising export projects undertaken by FAS on a cooperative basis with States and private sector commodity groups. The Association, therefore, requests your support for the Administration's proposed increase in the FAS market development budget.

As vital as export markets have become in recent years, we cannot afford to neglect necessary improvements in domestic marketing methods and facilities. This is primarily a task for the private sector, but government has a supporting role to play. Two programs of the Agricultural Marketing Service have been especially successful in helping to modernize domestic markets and reduce marketing costs. These programs are the Federal/State Marketing Improvement Program (FSMIP) and the Wholesale Market Development program. The proposed budget recommends zero funding for both programs.

The Association is especially concerned about FSMIP which requires matching funds from participating States. The program supports authorized projects designed to solve marketing problems or putting marketing research to practical use. Its purpose is to experiment with new, untested techniques, and it has become a major catalyst for many of the changes and innovations that are now taking place in the marketing field.

During the current fiscal year, the States were notified of the availability of FSMIP funds in January, 1983. Since then, 26 project applications have been submitted by 18 States, and twelve projects, involving electronic marketing, livestock exports, and direct marketing, have already been approved. Last year (fiscal 1982), 25 States and Puerto Rich received FSMIP support for projects addressing such priority concerns as farm to market transportation, export promotion and electronic marketing.

The Association appreciates your past support and asks you to fund FSMIP at the $1 million level the Subcommittee approved for FY 1983.

MEAT AND POULTRY INSPECTION

Cooperative State meat and poultry inspection programs are undergoing very critical scrutiny by Governors and State legislatures who are under great pressure to seek out every opportunity to cut expenditures. States have the option of relinquishing their programs and passing the full cost of meat and poultry inspection back to the U.S. Department of Agriculture. A number of states have exercised this option in recent years, and only 27 states remain in the program.

Representative Jim Jeffords and Senator Daniel K. Inouye have recently introduced legislation (H.R. 1795, S. 593) which will bolster the remaining State programs. These bills would permit State-inspected meat and poultry products to enter interstate commerce.

The Association is hopeful that the remaining 27 meat and 24 poultry programs will remain in existence if USDA continues to share 50 percent of program costs. The alternative is for USDA to take over these state programs and absorb the total cost. The proposed budget recommends $34.8 million for grants to states for meat and poultry which is sufficient to partly offset increased costs resulting from inflation and mandated pay increases. We respectfully as your approval of this recommendation, and take this opportunity to express our gratitude for your past support of State meat and poultry inspection programs.

FDA CONTRACTS WITH STATES

Since 1973, the Food and Drug Administration has contracted with State departments of agriculture and other State agencies for the performance of food, feed and medical equipment inspections by State personnel. This arrangement saves tax dollars because it permits a more efficient use of State inspectors and cuts FDA personnel costs. It also helps the States keep abreast of the latest inspectional and analytical techniques. At the present time there are 93 contracts with 46 States and Puerto Rico.

FDA contracts with States are funded through the agency's field operations (ELRC) budget. FDA has been required to absorb marginal cuts in its field operations budget each year since fiscal 1980. This reduction led to even steeper cuts in State contracts. For example, in fiscal 1980, contracts were funded at $5.3 million; in fiscal 1981 at $4.4 million; in fiscal 1982 at $3.3 million. Thanks to the Subcommittee's support for state contracts, the current year level is $5.3 million. We respectfully ask no less than this amount in 1984.

The contracts are cost-effective, because State personnel costs are generally lower than Federal personnel costs; and mandatory inspection work can be carried out for less money. From the perspective of budged economy, the program should be continued and even expanded.

SUMMARY

Mr. Chairman, the Association would like to call your attention to a longstanding problem which has caused serious disruption in program planning and budget management at the state level. I refer to the problem of arbitrary and sudden cutbacks in federal support for cooperative programs. This problem has been compounded by the utilization of different fiscal year calendars, and by lengthy delays in the federal budget process.

Moreover, when Federal budgets are reduced, State cooperative programs often bear a disproportionate share of the cuts, despite their well recognized cost-effectiveness.

For this reason, we ask your help in adding language to the Appropriations Bill to assure that when reductions are necessary, State cooperative programs will not be required to take a greater cut in percentage terms than the budget reduction sustained by the cooperating Federal agency.

The Association looks forward to working with the Subcommittee, and we are grateful for this opportunity to testify on the 1984 Budget. I will be happy to respond to any questions you may have.

LETTER FROM T. ED GARRISON, STATE SENATOR FROM SOUTH CAROLINA

March 21, 1983

Chairman Jamie Whitten
House of Representatives
Committee on Appropriations
Washington, D. C. 20515

Dear Chairman Whitten:

Fire ants continue to be an increasingly serious problem for South Carolina. Approximately 12-15 million acres are infested in the state. Thirty-one (31) counties as depicted on the enclosed map are under state and federal quarantine. Fire ants have also been found in Greenville, Greenwood, and Anderson counties, but these counties have not been placed under quarantine at this time.

Fire ants are not only a major economic pest but also present a threat to the public health. Homeowners, farmers, nurserymen, turf growers and other industries throughout South Carolina wage a constant individual battle to control fire ants. The economic losses come from the cost of control, damage to equipment and machinery, death of livestock and reduction in property values. The threat to public health comes from the pain of individual fire ant stings, an increasing problem with alergic reaction from multiple fire ant stings over a period of time. There are also unanswered questions about the danger of fire ant venom after the ant has been killed.

Because of the wide spread problems associated with fire ants, we are asking for your assistance to help control fire ants in South Carolina. Any type of financial and/or technical assistance that you can provide will be a tremendous benefit to the citizens of South Carolina.

Sincerely yours,

T Ed Garrison

T. Ed Garrison

LETTER FROM JOHN J. SNOW, JR., CHAIRMAN, AGRICULTURE AND NATURAL RESOURCES COMMITTEE, HOUSE OF REPRESENTATIVES, STATE OF SOUTH CAROLINA

March 16, 1983

Chairman Jamie Whitten
House of Representatives
Committee on Appropriations
Washington, D.C. 20515

Dear Chairman Whitten:

I am writing in regard to a problem which currently plagues homeowners, farmers, nurserymen, turf growers, and others in the State of South Carolina. This problem, imported fire ants, has resulted in federal quarantine for thirty-one counties covering some 15 million acres of South Carolina.

To date, no approved, economical pesticide exists that can provide effective, long-term control of imported fire ant populations. As a result, serious economic damage has occurred. I believe that damage resulting from this pest is sufficient to warrant more research in the management and control of the problem. I would urge you and your Committee to provide the financial assistance to the states necessary to allow this control

Sincerely,

John J. Snow, Jr.

STATEMENTS AND AFFIDAVITS CONCERNING DANGERS OF FIRE ANT STINGS

TO WHOM IT MAY CONCERN:

Fire ants continue to be an increasingly serious problem for South Carolina. Approximately 12-15 million acres are infected in the state. Thirty-one (31) counties as depicted on the enclosed map are under state and federal quarantine. Fire ants have also been found in Greenville, Greenwood and Anderson counties, but these counties have not been placed under quarantine at this time.

Fire ants are not only a major economic pest but also present a threat to the public health. Homeowners, farmers, nurserymen, turf growers and other industries throughout South Carolina wage a constant individual battle to control fire ants. The economic losses come from the cost of control, damage to equipment and machinery, death of livestock and reduction in property values. The threat to public health comes from the pain of individual fire ant stings, an increasing problem with alergic reaction from multiple fire ant stings over a period of time. There are also unanswered questions about the danger of fire ant venom after the ant has been killed.

Because of the wide spread problems associated with fire ants, we are asking for your assistance to help control fire ants in South Carolina. Any type of financial and/or technical assistance that you can provide will be a tremendous benefit to the citizens of South Carolina.

February 24, 1983

Senator T. Ed Garrison, Chairman
Agriculture and Natural Resources Committee
412 Gressette Building
Columbia, SC 29202

Re: Imported Fire Ant Situation in South Carolina

Dear Senator Garrison:

Per your request, following is a brief update of the imported fire ant situation in South Carolina.

Fire ants continue to spread and are still a problem for homeowners, farmers, nurserymen, turf growers and other industries throughout the state. Approximately 12-15 million acres are infested in the state. Thirty-one (31) counties as depicted on the enclosed map are under state and federal quarantine. Fire ants have been found in several other counties, namely Greenville, Greenwood and Anderson, but have not been placed under quarantine at this time as efforts are being made to treat and eliminate the individual mounds.

Amdro, an American Cyanamid Company product, is one of the latest fire ant products that appeared suitable for large scale aerial treatments. This product was tested on 20,000 acres in South Carolina (Orangeburg and Bamberg Counties) in the fall of 1980. The results were very erratic. This is not to condemn Amdro, but reflects more on the size of the treatment block. There were simply too many untreated areas such as borders of forested land, crop land, and borders of ponds, etc., from which reinfestation occurred. Other factors could have been involved, but the former contributed greatly to the situation. Cost of Amdro in addition to the test results did not and still does not warrant or justify, in my opinion, the expenditure of state monies for a cooperative state-federal imported fire ant control program. Amdro was costing the state approximately three dollars per pound in truck-load quantities.

No large scale control treatments have been conducted in South Carolina since 1980. We still maintain our regulatory efforts against this pest as provided for under the quarantine and do our best to assist homeowners, nurserymen, farmers, etc. in moving or shipping regulated commodities from infested areas. Nurserymen are advised to keep their environs free of this pest and are doing a good job treating on an individual mound basis at their own expense. Turf growers in infested areas are assisted and advised of regulatory treatments using Dursban whereby turf can be certified for shipment to non-infested states. We are also continuing limited survey efforts in non-infested counties and are treating any new finds to prevent further establishment and spread.

Other fire ant infested states conducted aerial treatments using Amdro in 1980 and 1981. Texas comes to mind where approximately 304,000 acres were treated in the spring of 1981. Eighty-two percent control was achieved after eight weeks, 97% after 14 weeks, and 33% after 25 weeks. Reinfestation occurred between the 14 and 25 week periods. With Amdro costing three dollars per pound at the time and an application rate of one pound per acre, I question the expenditure of funds. Other states have been involved in give-away programs. South Carolina has also tried this in years past with Mirex, but it is not the solution to the problem.

The Mississippi Authority for the Control of Fire Ants is still persuing the registration of ferriamicide for fire ant control. They indicate that it can be produced very economically which would allow state dollars to go further and larger acreages to be treated. However, it appears doubtful that registration will ever be attained. A Section 18 request (specific exemption) was applied for this past fall from the Environmental Protection Agency (EPA) and almost immediately a suit was filed by the National Audubon Society which was successful in their efforts to prevent registration.

As far as other products, Stauffer Chemical Company has just received registration from the EPA this week for a new product to be called Pro-Drone. Based on information received last fall, the product is considered an insect growth regulator and acts by causing a change in caste development. The new larvae when fed the material will develop into "sexuals" instead of workers whose primary colony function is foraging for food to sustain the queen and the nest. Without workers, the colony will eventually die out. This material is very slow acting taking approximately 13 weeks before mound reduction is noticeable. The product will be packaged in 25 pound bags. The application rate is 0.88 lbs. of formulated material (1.2% formulation) per acre (4.8 grams active ingredient/acre). The product is a bait material consisting of the active ingredient and soybean oil impregnated on a defatted corn cob grit. The label does not have a crop use which prevents its use in soybeans, corn, tomatoes, etc., where ants are sometimes a problem. I am assuming that its intended use is on pastures, hay fields and other non-agricultural lands. I have not seen a label, but a company spokesman indicated that there was no prohibition on the label preventing its use over or around aquatic situations. The label will also recommend two applications timed six months apart, spring and fall. Stauffer would like for the infested states to get back into large scale treatment programs.

The product appears ideal from an environmental standpoint. However, I feel that its cost per pound and efficacy against the fire ant will determine its ultimate use. I would certainly want to review research and field test data prior to taking a position.

All of the previously mentioned products were developed for large scale treatments, but could also be utilized in individual mound treatments. Enclosed is a sheet listing several other products that are available for use by homeowners and others that provide control but are impractical for large scale treatments.

This provides a brief summary of the current situation as I know it. We certainly try to stay abreast of the current situation and would reinstitute treatments if a new material whose cost and efficacy data justify the expenditure of funds.

Sincerely,

H. B. Jackson

H. B. Jackson
Head

January 25, 1983

TO WHOM IT MAY CONCERN

My daughter, Mary Margaret Harper was stung by fire ants when she was one year old. She had anaphylaxis with respiratory distress. Fortunately she recovered.

She has been on fire ant venom desensitization injections monthly since that happened. She is now eight years old. She has been stung on three occasions since the original episode. Each of the times she has had marked swelling but not anaphylaxis.

It will be necessary for her to take her monthly desensitization injections for the rest of her life unless the fire ant can be eradicated.

Sincerely,

John R. Harper, M.D.

JRH/cvh

State of Mississippi
County of Smith

Personally appeared before me, the undersigned authority, John R. Harper, M.D., who acknowledged that he signed the foregoing statement on this the 25th day of January,1983.

Velvet K. Williams
Notary Public
Smith County,Ms.

My Commission Expires:
January 31,1984

AFFIDAVIT OF SPURGEON BURROW

I,, Spurgeon Burrow, hereby state and affirm as follows:

1. I am a dairy farmer in Jefferson Davis County, Mississippi.

2. My dairy herd consists of 125 head of mixed breed dairy cows.

3. I use approximately 150 acres of land for grazing these cattle, cutting the excess forage for hay. I also use another 150 acres to produçe silage crops such as corn and sorghum.

4. One of the plots used in the 1980 and 1982 ant density studies by the Mississippi Department of Agriculture and Commerce was in my pasture and I am told that the count was an average of 86 mounds per acres.

5. I estimate a loss at calving time from the Imported Fire Ant to be a minimum of 10 calves since 1979.

6. I estimate a loss of approximately 10% in production of silage, loss from stunted growth because of the Imported Fire Ant feeding on the roots.

7. I have had a grazing loss in my pasture. Because of the number of mounds some areas of my pasture are not grazed by the cattle. When this happens, the mounds must be knocked down by dragging a harrow over the area, and this frequently happens.

8. I estimate repair to machinery to be approximately $1000.00 per year. This repair is caused by collisions with Imported Fire Ant mounds.

9. When dairy cows lie down to rest, the Imported Fire Ant will sometime sting these animals. If this sting is on the udder there is a problem in milking this animal and a loss in production. This situation has occurred several times on my farm.

10. I estimate medical expenses for my family from bites and stings of Imported Fire Ants to be a minimum of $50.00 per year.

11. The production of milk from my dairy is an average of 1600 pounds per day, and the average price is $14.00 per hundred weight. I estimate that with control of the Imported Fire Ant on my farm the production could be expected to increase approximately 5%. This increase in production would amount to $4000.00 per year additional income.

In accordance with 28 U.S.C. § 1746(2), I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Spurgeon Burrow
Executed January 25, 1983

AFFIDAVIT OF JAMES C. CARPENTER

I, James C. Carpenter, hereby state and affirm as follows:

1. I am a soybean and cattle farmer in Leake County, Mississippi.

2. I grew 450 acres of soybeans in 1982 and grazed approximately 200 head of cattle on pasture land.

3. All of the land, that I planted in soybeans and grazed cattle on, is infested with Imported Fire Ants.

4. My loss in soybean production would amount to at least $5000.00 this year. I estimate a loss of 2 or more bushels per acre on soybeans from the mounds being present in the fields. When the combine has to stop to be cleaned due to a collision with Imported Fire Ant mounds and when dirt from the mounds go through the combine, parts are worn and screens are stopped up causing loss of beans. A loss of seven small beans per square foot over an acre amount to a loss of one bushel per acre.

5. Adjustment and replacement of parts are necessary due to mound dirt. These adjustments and replacement of parts cause down time.

in fact, this year this down time has caused damage to beans left in the field because of weather conditions. Today I have 15 acres of beans in the field that could have been harvested during the downtime last fall.

6. I estimate my losses in cattle production and hay harvesting to be about the same amount as in the soybeans ($5000.00).

7. I have had to increase my capitol investment for equipment in order to harvest hay because of the presence of the Imported Fire Ant mounds on my land. This equipment includes: Large round hay baler that bales a bale weighing 12 to 15 hundred pounds, and a hay mover. I expect to have to purchase a different mowing machine next year if the infestation continues.

In accordance with 28 U.S.C. § 1746(2), I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

James C Carpenter

James C. Carpenter
Executed January 25, 1983

AFFIDAVIT OF Martha Graham

I, Martha Graham, hereby state and affirm as follows:

1. I am a housewife in Forest, Mississippi and an employee of the Mississippi State Highway Department. Our home is located on 31 acres about one mile outside the corporate limits of Forest.

2. My yard and garden are infested with fire ants and have been for a number of years. Prior to that Sunday afternoon in mid August of 1981, I was stung from time to time while working in the yard and garden with no allergic reaction.

3. While in my garden one Sunday afternoon in mid August, I was stung several times by fire ants. Within two hours I began to have flu-like symptoms, chills, fever and aching all over. I was so sick that I did not realize until I tried to stand on my right leg on Monday afternoon that my foot and leg were red and swollen.

4. On Monday evening my husband carried me to the emergency room at S. E. Lackey Memorial Hospital where a nurse tried to assure me that I had poison oak. She so advised my doctor who ordered via telephone an injection for nausea. He told me to come to his office Tuesday. When I went to Dr. David Lee's office on Tuesday morning, my swelling and redness had worsened. He said it looked like a rash. After an injection and two prescriptions, I went back home.

5. Because I felt no satisfaction with the diagnosis and my condition was worsening, my husband rushed me to Hinds General Hospital in Jackson, Mississippi, at 5:30 a.m. Wednesday. We met Dr. Charles McCollum in the emergency room. He immediately recognized the problem as fire ant stings.

6. I was admitted to the hospital for a stay that lasted 10 days. Treatment included K-Packs (moist heat pads) applied to my leg and foot two hours at a time, four times daily, and antibiotics

administered intravenously. Due to the fire ant stings my leg and foot were swollen and crimson. I experienced 100oF+ temperature for six days. My doctor ordered a test for a blood clot because of the swelling. The test was not successful because the doctor was unable to locate a vein in my foot due to the extreme swelling.

7. I experienced a great deal of physical pain as a result of the stings and complications. I had to take time off from work (in the hospital and recovering at home) and I incurred substantial medical bills. I was on sick leave from my job for three weeks. I needed more time off but felt an obligation to get back to my responsibilities. My medical bills included a $1,800 fee from Hinds General Hospital, $355 from Dr. McCollum, $23 from S. E. Lackey Memorial Hospital, $20 from Dr. Lee and $100 for prescription. This is a total of $2,298. Moreover, I have continuing physical infirmities.

8. My physician has cautioned me to stay away from the fire ant. On our property we have continuing problems with fire ants. Through using the available pesticides we have not maintained satisfactory control.

9. Late afternoon of October 22, 1982 I stepped off my porch to bring in my plants. One fire ant stung me on the same leg that was stung in 1981. Because I had only one sting, I expected no problems. When I woke up at 8 a.m. on October 23 I again experienced the flu-like symptoms I had experienced last summer when my troubles began. Just as before, I did not relate the aches and fever to the sting. I stayed in bed that day treating my symptoms.

Sunday, October 24 about 8:30 a.m. I woke to find my leg which had been stung red and swollen. For the remainder of the day I kept my leg elevated. At the end of the day, the swelling was diminished and the redness had lessened.

Monday, October 25, I went on to work. By the end of the day, my leg looked much worse.

Early Tuesday morning I saw Dr. David Lee. He gave me a shot of antibiotics and a prescription for oral antibiotics. He directed me to stay home from work and keep my leg elevated.

As a result of one fire ant sting I have missed four days work and required two injections as well as ten days prescripton or oral antibiotics.

10. I am afraid to go outside. Any time I am outdoors I face the risk of being stung again. I can no longer work in my yard and garden. My husband does all the garden work. Even after he brings the vegetables inside, I fear a straggler ant will sting me.

11. Action must be taken to allow the use of a safe, effective economical insecticide for control of Imported Fire Ants. Something must be done to save others from the plight I have faced.

Until a person has been stung by a fire ant, he/she cannot comprehend how painful it is.

In accordance with 28 U.S.C. § 1746(2), I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Martha Graham
Martha Graham
Executed on January 25, 1983

STATEMENT OF HON. WILLIAM E. DYKES, CHAIRMAN, SENATE AGRICULTURE COMMITTEE, LOUISIANA

THE IMPORTED FIRE ANT IN LOUISIANA

Extent of Infestation

Since the invasion of the imported fire ants (IFA), *Solenapsis richteri Forel* and *Solenopsis invicta Buren*, into Louisiana in the 1950's, infestation has spread throughout the state, despite various efforts to control and/or eradicate the insect. As of September 30, 1982, an estimated 27,000,000 acres of Louisiana's 28,867,840 acres were infested. In 1983, Louisiana is one of only two states in which all of the parishes are infested.

Limited success in eradication and control occurred through the use of Mirex and Chlordane. Significant results were obtained in areas where total application was performed rather than spot treatment. Although positive results occurred, a total eradication program was never implemented in all infested parishes. An accompanying problem was the migration of the IFA to non-treated areas. The EPA cancelled all registrations for Mirex, effective June 30, 1978. Chlordane followed a similar path, being cancelled for most uses on March 6, 1978 and its use for regulatory treatments being phased out on December 31, 1979.

Subsequent to the above action, the IFA has become increasingly severe throughout the state.

The IFA causes significant health-related and economic problems. These problems have been and will continue to become accentuated without adequate IFA control.

Health-Related Problems

The IFA is a dangerous and very real hazard to man. IFA stings/bites produce intense burning sensations, followed by whelt formation, then a vesicle with clear liquid forms, and finally a white pustule. Secondary infection may occur.

Severe systemic reactions occasionally follow a sting which can produce anaphylactic shock and death if medical treatment is not secured promptly.

A 1973 study indicated that 29% of the 240 households surveyed reported stings with 55% of such stings occurring among children under 10 years of age. Allergic reactions were reported by 17% of the victims while 4.4% required medical consultation and approximately .1% required hospitalization.

Children under 10 years of age (because of frequent exposure), adults older than 65 (because they have more problems with secondary infections) and heart patients (because of swelling and circulatory problems) are considered high risks concerning severe systemic reactions to IFA stings, potentially leading to anaphylactic shock or death.

The IFA's sting requires, to varying degrees, medical attention, medication, and/or desensitization and results, in some cases, in lost work days and even restrictions in life style in attempts to avoid future IFA stings.

Attempts to avoid IFA stings are usually futile due to the statewide infestation. Children, as stated earlier, are primary victims from infested areas such as schools, playgrounds, and at home. Persons using recreational areas must be alert for IFA mounds.

Agricultural workers are also seriously affected by IFA stings, particularly during crop cultivation and harvesting, whether harvested mechanically or by hand.

Economic Problems

The IFA causes many economic problems including: medical expenses for treatment; reduction in crop yields; damage to farm equipment; contamination of grain crops with mound dust; loss of time or labor; livestock losses; lower property value; damage to levees; less efficient farm operations; and increased cost of IFA control.

Beneficial Aspects

The IFA is reported to be a beneficial insect in the control of the sugarcane borer in sugarcane production and in the control of insects detrimental to soybean production. IFA infestation has also resulted in the reduction of hornfly and lone star tick populations.

However, on the whole, the beneficial aspects are greatly outweighed by the detrimental aspects and effects of IFA infestation.

Crop Production

Soybeans. The IFA plays a significant detrimental role in crop production, including soybean production. The presence of IFA mounds causes (1) incomplete soybean harvet when the crop is intermixed with IFA mounds, (2) damage to harvesting equipment and (3) reduced crop yields, as much as 30%, with mound densities greater than 40 mounds per acre.

Poultry Production

The IFA has also affected poultry production with reports that death of newly placed chicks has occurred, along with incidents of lowered grades given to finished birds at processing because of IFA stings.

Damage to Farm Equipment

Cultivated fields can be infested with IFA mounds. Large mounds can damage or clog farm machinery. Mounds also cause mechanical inefficiency in the harvesting process when evasive actions are used. Additional factors, in addition to the direct expense of machinery repair are the down-time during repair and the increased required capital investment because of potentially shortened work life of certain farm machinery. Farm workers may be attacked while repairing or unclogging such equipment.

Reduced Property Values

Heavily infested farm land cannot be used to its full capacity in crop production or as pastureland. As a result, such areas have a reduced value per acre.

Conclusion

The farmers and citizens of Louisiana need an economical, feasible, and cost-effective method of chemical control and eventual eradication of the IFA to reduce and hopefully prevent health-related problems and economic losses.

A continuing and evident concern is that the use of a chemical to control the IFA must not harm this generation of citizens or the next. However, because of the increasing health-related problems and economic losses resulting from the growing IFA infestation, the IFA poses a far greater threat to Louisiana citizens than the amount and kind of toxicant, such as Ferciamicide, which could be used to effectively control the IFA.

A RESOLUTION

To memorialize the Louisiana congressional delegation to assist Senator W.E. Dykes in his efforts to represent the Joint Committee on Agriculture and the Louisiana Department of Agriculture in informing Congress of the existing and growing problems and concerns relative to imported fire ants and in obtaining federal funds for the purpose of imported fire ant control, and also in informing Congress of Louisiana's recent experiences with the Federal Emergency Disaster Relief Program.

WHEREAS, Senator Dykes, as chairman of the Senate Committee on Agriculture of the Louisiana Legislature, has been designated by the Joint Committee on Agriculture to represent Louisiana's interests on regional and national forums in matters concerning agriculture, particularly the imported fire ant; and

WHEREAS, Senator Dykes is a member of the Special Task Force on Fire Ants, of the Southern Legislative Conference, to work with the federal government to expedite an acceptable method for controlling the spread of the imported fire ant; and

WHEREAS, concern has been expressed concerning the apparent inappropriateness and inadequacy of federal response under the Federal Emergency Disaster Relief Program to the Louisiana agricultural areas which have been affected by recent floods; and

WHEREAS, the Joint Subcommittee A of the Joint Committee on Agriculture seeks to obtain the assistance of Louisiana's congessional delegation in aiding Senator Dykes in presenting the views of the Joint Committee on Agriculture concerning the imported fire ant and the Federal Emergency Disaster Relief Program as experienced in Louisiana to Congress and in obtaining federal funds for imported fire ant control.

THEREFORE BE IT RESOLVED by the Joint Subcommittee A of the Joint Committee on Agriculture that the members of the Louisiana congressional delegation are hereby memorialized to assist Senator W.E. Dykes in his efforts to represent the Joint Committee on Agriculture and the Louisiana Department of Agriculture in informing Congress of the existing and growing problems and concerns relative to imported fire ants and in obtaining federal funds for the purpose of imported fire ant control, and also in informing Congress of Louisiana's recent experiences with the Federal Emergency Disaster Relief Program.

Adopted on the 8th day of March, 1983, by the Joint Subcommittee A of the Joint Committee on Agriculture.

JAMES P. MARTIN, CHAIRMAN
JOINT COMMITTEE ON AGRICULTURE

STATEMENT OF HON. VERNON G. JAMES, CHAIRMAN, NORTH CAROLINA LEGISLATURE, HOUSE AGRICULTURE COMMITTEE

Senator Cochran, members of the Appropriation Subcommittee on Agriculture and Related Agencies and guests: The imported fire ant is a serious menace to citizens in infested states and a hindrance to agricultural production in such areas. Since its introduction in the 1940's, the imported fire ant has spread throughout the southern states. The pest was first detected in my home state of North Carolina in 1952 and since that time it has spread to areas in fifteen counties. At the present time about three and three quarter million acres are infested in North Carolina. During the late 1950's and early 1960's through cooperative efforts of the North Carolina Department of Agriculture and U. S. Department of Agriculture, the imported fire ant was kept practically to nonexistent levels. As areas of infestation developed in South Carolina immediately adjacent to our state's boundaries and controversies over the use of Mirex developed, we began to see the imported fire ant develop a foothold in the southeastern corner of our state during the early 1970's.

North Carolina is presently the most northern location where the imported fire ant is established in the western hemisphere. Studies by scientists have indicated that our state is probably on the northern boundary of the expected range where the pest can establish. In this context the pest has spread in North Carolina at a much slower rate than in other southern states. Our winters usually cause populations in at least one-half of the infested area in our state to be suppressed. The imported fire ant seems to prefer the sandier types of soil in North Carolina and potentially can exist in approximately one-half of our 100 counties. Although it has the potential to exist in these areas of our state, it remains an unanswered question as to the potential problems that it can generate.

In the areas of North Carolina where the imported fire ant is established it is a nuisance and a human health problem. There are numerous reports of allergenic reactions to the venom of the ant when sensitive people have been stung. A portion of the infested area in North Carolina constitutes areas around beaches and other recreational locations. Visitors to our state who are not familiar with the pest are also subject to discomfort and inconvenience as a result of unwilling encounters with the pest. On our farms in infested counties, documented losses in production of crops and livestock do occur.

At the present time, our North Carolina Department of Agriculture maintains a state quarantine for infested areas of our state and operates a limited suppression effort. The program in North Carolina is called a Community Assistance effort with the idea being to have a program structured such that local input is solicited and utilized where control efforts are used. The program briefly consists of the following elements.

1. Field treatments of limited broadcast applications and individual mound treatments around regulatory hazards where spread could initiate from into noninfested areas and limited ground applications on the periphery of infested areas.
2. Cooperative ground treatments with public agencies such as county governments and local municipalities when such agencies wish to operate a control program.
3. In infested counties on farm properties where labeled materials are available for ground broadcast treatments, cooperative treatment can be arranged if farmers pay one-half the cost of the material to be applied.

While the State of North Carolina does not presently have a problem with the imported fire ant to the extent experienced in other southern states, we do support more realisitc efforts to deal with the pest. From our prospective there is definitely a need for the registration and use of more materials which are environmentally acceptable for control and suppression. There is a noticeable lack of materials that can be used easily and efficaciously by homeowners on residential properties. Another area where emphasis needs to be exerted is on materials which would be acceptable in public programs. We continue to support quarantine efforts at the state and federal level to limit spread of the pest to the extent possible. Within the USDA we would also like to see a contact person designated within the Animal and Plant Health Inspection Service to act as a coordinator and liaison person with the states.

Thank you for the opportunity to present this statement.

STATEMENT OF HON. LEROY J. WIETING, CHAIRMAN, TEXAS HOUSE AGRICULTURE-LIVESTOCK COMMITTEE

On February 11, 1983, the Southern Legislative Conference sponsored a meeting to develop a cohesive southern strategy to address the imported fire ant problem.

In attendance were representatives of Southern State Legislatures, State Departments of Agriculture, universities, USDA and EPA.

Contrary to the statement released by USDA that the pest is now confined to the southern states and new and effective pesticides are now available, the group agreed that we do not have the technology to stop the increase and spread of the imported fire ant. While the problem continues to grow, state and federal governments have provided only limited funding toward a long term coordinated research effort to find an effective and environmentally sound solution.

The group agreed that USDA should be taking the lead in the pursuit of these answers instead of reducing their involvement each year. Texas and a few other states have been active in research activities, but we have not been able to develop and expand on some of the promising discoveries.

We have been working closely with USDA-APHIS, Methods Development and ARS personnel evaluating some new products. Due to reductions in staff and funding they would not have been able to function without our assistance. This year we have learned that even more reductions are being made that will, in effect, close the ARS facility at Gulfport, and limit activities of the Methods Development staff there.

Currently there is an urgent need for a practical and effective quarantine treatment to permit regulated articles to move under reasonable conditions without spreading fire ant infestations. Many people believe that the final solution for control or suppression will be the development of a biological agent. Research definitely should be increased in this area.

One other recommendation made at the meeting concerned the need of USDA-APHIS to assign a full-time program staff position to direct and coordinate the fire ant program.

Since the February 11th meeting, a new control chemical, "Pro-Drone", has been approved by the EPA. The infested states are very interested in conducting treatment programs using this new material. In Texas we are planning to treat 500,000 acres as a pilot project this Spring and again this Fall to evaluate the product to actual field conditions. If this program is as successful as we anticipate, then we will be able to recommend the use of Pro-Drone in large treatment programs in all infested states. The state governments in the infested states cannot produce all of the funds necessary to finance a program of this magnitude. The USDA has been very instrumental in providing financial help and technical assistance in these large area programs. Their participation is a vital part to the success of an imported fire ant treatment program.

The states could have as much as $10 million available for 1984 treatment programs. We would request that USDA-APHIS have a similar amount available to match state and local funds for fire ant control programs. The State of Texas Agriculture and Livestock Committee has recommended a $200,000 appropriation to the Texas

Department of Agriculture to finance a research facility in South America to look for a successful biological control agent in the imported fire ant's native habitat. We also have indications of interest from the States of Florida and Louisiana. The USDA should also be taking part in this important research. We would hope that funds in the amount of $500,000 annually be made available to USDA-APHIS Methods Development and USDA-Agricultural Research Service to participate in these South American studies.

Please consider the problems outlined in my testimony and remember that the fire ant problem will continue to intensify until we can come up with an appropriate solution. The people in the southern infested states deserve and demand the continued involvement of the federal government in seeking an answer to this serious pest problem.

STATEMENT OF HON. JIM BUCK ROSS, COMMISSIONER, MISSISSIPPI DEPARTMENT OF AGRICULTURE AND COMMERCE

I am Jim Buck Ross, President of the National Association of State Departments of Agriculture, speaking on behalf of the Commissioners of Agriculture in the fire ant infested states and as a member of a special task force of the Southern Legislative Conference of the Council of State Government.

We encourage funding for the Imported Fire Ant program within APHIS appropriation for fiscal year 1984 to be continued at least at the fiscal year 1983 level. There has been concern among officials of the infested states that APHIS does not have a specific staff member assigned to work with states on fire ant control and research. It is requested that language be added to the appropriation bill directing APHIS to designate a staff member to cordinate fire ant control and research with the infested states. It is also requested that APHIS be directed to use all funds appropriated as earmarked.

The Imported Fire Ant infestation in Mississippi is a very serious problem. The control of the Imported Fire Ant is an item of major concern to the citizens of Mississippi. During the past two years, with a limited control program due to the high cost of the only registered bait, the Imported Fire Ant population has grown to the point that they pose a very serious health hazard for human life as well as an economic hardship for Mississippi farmers. The increasing danger to human life and the serious economic losses suffered in the state dictate more and more that action be continued to alleviate the suffering and losses caused by the Imported Fire Ant.

A survey was conducted by personnel from the Mississippi Authority for the Control of Fire Ants of the Mississippi Department of Agriculture and Commerce supported by the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and Plant Protection and Quarantine (PPQ) Division. Observations were obtained uniformly throughout the state at the intersection points of north-south and east-west lines 15 kilometers apart. Data was collected at the same sites in 1980 and 1982. The primary objective of the survey was to estimate the mean densities of fire ant mounds per acre and to develop mound density contour maps in order to facilitate the analysis of the spatial extent of the Imported Fire Ant problem in Mississippi in support of on-going control program activities. The survey was expanded in the 1982 period to include various ancillary data regarding the physical land use and economic characteristics of each site along with class of ownership and assessment and preception on the owner's part as to the experienced damage and severity of the Imported Fire Ant problem.

A spatial-statistical analysis of the survey data was undertaken by Loats Associates, 24 Court Street, Westminster, Maryland to determine:

1. the geographic extent of the various levels of Imported Fire Ant activity as inferred from mound density.
2. the spread of the Imported Fire Ant activity during the time period between 1980 and 1982.
3. the potential impact of Imported Fire Ant activity as inferred from mound density and important segments of agricultural and non-agricultural human activities.

The results of the spatial-statistical analysis indicate that the Imported Fire Ant activity has spread significantly during the period between 1980 and 1982. This spread particularly in the northeast direction is beginning to threaten the major agricultural production region of Mississippi. Estimates of the damage to the Mississippi soybean crop and of the number of stings to the human population were made based upon experiments performed in analogous areas. The Imported Fire Ant impact upon soybeans in terms of loss of production has been estimated at approximately $59,000,000 at the current (1982 survey) level of Imported Fire Ant acitivty. With the warm weather we have experienced in December, January and February, the impact on soybean production will be even greater in 1983 in Mississippi.

The number of people in Mississippi experiencing Imported Fire Ant sting attacks is estimated at 338,000 per year. Based upon the demography of Mississippi this would equate to 107,000 sting attacks for the high risk population segments of children under 10 years of age and persons over 65.

The estimates above are probably conservative since only the geographic areas with mound activity levels greater than 40 mounds per acre were included. Further the estimated losses to other potentially damaged crops such as pine seedlings, hay-forage, corn and livestock were not included since they were not explicitly covered by the field experiments which were used to support this effort.

Mississippi is the only Imported Fire Ant infested state where this survey has been conducted. Should a similar survey be conducted in the other infested states similar estimates would be obtained.

Imported Fire Ant infestations have been identified in many different and important habitats, including vegetable crops, nurseries, orchards, hayfields, forests and unmanaged lands. Imported Fire Ant activity has been documented to result in reduction in yield and quality of hay and reduction of yield for field crops such as soybeans in areas where the ants are abundant and where the seed had not been well covered. There have also been documented reports of livestock losses from Imported Fire Ant stings. In addition, the structural characteristics of the ant mounds have resulted in damage to farm equipment as well as requiring more expensive changes to cultivation practices.

At the symposium on the Imported Fire Ant at Atlanta, Georgia in 1982 the following was reported:

1. Nationwide, some 2.5 million persons are stung each month by the Imported Fire Ant. Four thousand of these persons suffer allergic reactions. Deaths as a result of these reactions have been reported in Georgia, Florida, Alabama, North Carolina and Mississippi.
2. Preliminary studies show that fire ant infestations can definitely decrease yield in crops such as soybeans and corn.
3. The appearance of fire ant activity in areas where the crops require intensive hand cultivation, particularly citrus, can reduce worker productivity.
4. In 1977 it was estimated that nine infested southern states suffered crop losses and pastureland damage of over $50 million.
5. Productive farm and ranch land is being abandoned due to fire ant infestations. Infested counties in Texas average 80-90 mounds per acre. Some instances of mound activity as high as 600 mounds per acre have been noted.

6. In Alabama only three out of 67 counties are free of the fire ant. The greatest number of complaints come from forage farmers. Complaints have also been received from nurserymen.

7. Every land acre in Florida is infested with fire ants according to the director of the Florida Imported Fire Ant program. Increases in the number of stings to citrus workers has been noted. Also the Imported Fire Ant has been reported to damage young citrus trees.

The Imported Fire Ant, Solenopsis richteri Forel and Solenopsis Invicta Buren, were introduced into the United States in the early 1900's from South America. In the early 1950's Imported Fire Ant infestations were noted as far south as Miami, Florida with infestations as far west as San Antonio, Texas and as far north as Memphis, Tennessee and eastern North Carolina. At present infestations are found on approximately 240 million acres covering 9 states. The red fire ant, Solenopsis invicta, is the predominant species covering approximately 95% of the area.

The maps shown in figure 1 and 2, from the 1981 USDA Cooperative Imported Fire Ant Program - Final Programmatic Environmental Impact Statement, illustrate the historic spread of Imported Fire Ant infestation and shows the approximate current extent of Imported Fire Ant infestation. There is a current consensus that the land area most susceptible to Imported Fire Ant infestation is approximately bounded by a line corresponding to the boundary of the 10^0 Fahrenheit minimum temperature. However, the fact that the Imported Fire Ant may have reached this approximate temperature barrier in many areas does not indicate that (1) the maximum level of severity of infestation has also reached its limits or (2) that the infestation boundary has stablized in a local sense. This present study addresses both of these aspects in Mississippi.

Two species of Imported Fire Ants were brought to the United States about 40-60 years ago, and they have become a pest to agriculture, a health hazard, and a nuisance to those persons in infested areas. The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and Plant Protection and Quarantine (PPQ) program, is responsible for program actions designed to locate the ants through survey activities, prevent or retard long distance spread through the application of regulatory procedures, and reduce population by applying control treatments.

Beginning in 1970 the Mississippi Legislature provided funds to the Mississippi Department of Agriculture and Commerce for a cooperative control program. The last few years the control program has been limited because of the high cost of bait and shortage of funds at both federal and state level. In an effort to up-grade the control program without adding addftional funds, the Mississippi Department of Agriculture and Commerce has continued research for a more economical bait to control the Imported Fire Ant. This research is now paying off. It is expected that sufficient toxicological studies will be completed to support an application for conditional registration of FERRIAMICIDE within the next two years. In the meantime, the Mississippi Department of Agriculture and Commerce has applied to the Environmental Protection Agency for the emergency use of FERRIAMICIDE to alleviate the suffering and economic losses caused by this pest. We expect action on this application in the very near future.

STATEMENT OF HENRY L. REEVES, CHAIRMAN, HOUSE AGRICULTURE AND CONSUMER AFFAIRS COMMITTEE, GEORGIA GENERAL ASSEMBLY

April 11, 1983

TO: Senate Appropriations Subcommittee on Agriculture,
Rural Development and Related Agencies

FROM: Henry L. Reaves, Chairman
House Agriculture and Consumer Affairs Committee
Georgia General Assembly

RE: Imported Fire Ant Irradication

Since the use of Mirex to control fire ant population was discontinued in Georgia in 1977, the imported pest has reached unmanageable populations in many areas.

Some County Extension Agents estimate fire ant mounds in some areas number three times what they were five years ago. In addition, the imported fire ant has spread northward past the City of Atlanta and into areas as far as 50 miles north of Atlanta.

As the ant has spread to new areas and increased population in old areas, it has become an even greater threat to public health as well as the orderly management of agricultural operations.

Orchardists producing peaches and apples report increased infestations creating an ever growing problem for the hand labor used to harvest these fruit crops.

The problem has expanded to critical levels where hand labor is used to handle hay or the harvesting of other agricultural commodities and makes it even more difficult for farmers to service and/or repair equipment used in fire ant infested fields.

Farmers report more rapid deterioration of below ground fence post footings when the ants build mounds at the base of and around the posts.

Newspaper reports this spring emphasize severe fish kills in many areas when colonies of ants cling together and are washed into farm ponds and streams. Fishery biologists with the State Game and Fish Commission report numerous fire ants among the stomach contents of bluegill, catfish and bass are directly attributed to the death of the fish.

County Extension workers and other agricultural leaders can verify the loss of new born pigs and calves in many of Georgia's 159 counties and wildlife biologists can document the loss of game birds and other wildlife due to depradations of the imported fire ant.

Farm equipment damage from fire ant mounds is on the increase throughout the state and the occurrence of rocks and sticks in harvested soybeans and other such crops are being attributed by some to the use of combines and other such equipment in areas heavily infested by fire ant mounds.

The development of Pro-Drone, the new growth regulating chemical, holds great promise for the resumption of aerial operations in the eradication of fire ant infestations. At this stage, however, Pro-Drone is not considered a primary tool for individual mound treatment.

Although aerial operations and the general broadcasting of a safe anti-ant material such as Pro-Drone is the most desirable means of eradicating and/or controlling fire ant populations, the importance of materials that can be used effectively in the treatment of individual mounds in such areas as playgrounds, school yards, cemeteries, public parks and home grounds can not be over-emphasized.

We have one such material known as Amdro which is commercially available but which is considered prohibitive for widespread use because of its cost. Amdro is effective but too costly for individual mound treatment over large acreages, and a second material such as Ferriamicide could be used more economically by farmers and large land owners.

Therefore we urge that this Committee recommend money be put into the budget for matching money, by the states affected by the imported fire ants, so that a program can be started for immediate irradication.

[From the Atlanta Constitution, Mar. 10, 1983]

FIRE ANTS A DEADLY MEAL FOR FISH IN FARM PONDS

(By Charles Salter)

A number of bluegills, channel catfish and yearling largemouth bass have died in ponds during the past two weeks after swallowing fire ants swept from their mounds by rain-swollen streams in central and south Georgia.

Wayne Thomaston, fisheries supervisor for the state Game and Fish Division's central Georgia district office in Fort Valley, said he has investigated reports of minor fish kills this month in farm ponds in Bibb, Houston, Peach, Monroe and Jones counties.

Fire ants were found in the stomachs of bluegills, commonly called bream by fishermen, and young largemouth bass, the fisheries biologist said.

"This happens every year in the late winter and early spring," Thomaston said. "We'll have several very warm days, and the fire ants become active in the hills again.

"Then we'll have a lot of rain, and the streams flood and water reaches the fire ants' hills."

"I saw fire ants in Quitman and Brooks County," Thomaston said Wednesday, "and unless you had seen it, you wouldn't believe it. Hundreds of swarms of fire ants were on sticks and limbs where it flooded. The fish would rise and feed on the ants."

Thomaston was uncertain whether the fish died as a result of fire ants' stings or simply from digesting the toxin in the ants.

[From the Birmingham Post-Herald, Apr. 14, 1983]

SOUTHEASTERNERS CONTINUE TO SUFFER FROM FIRE ANTS

INEXPENSIVE, EFFECTIVE PESTICIDES BANNED AS ENVIRONMENTALLY UNSAFE

(By Mike Harris)

While the search goes on for an environmentally acceptable pesticide strong enough to halt the spread of the fire ant, people in the Southeast continue to suffer stinging bites from the tiny insects that protect their mounds with the ferocity of a mother lion.

"They hurt. That's the reason they got the name fire ant — it burns when they sting," says John Jones, farm agent for Shelby County, where many pastures and yards are dotted by red ant mounds a foot high, or more.

Beside infesting playgrounds, lawns, pastures, recreational areas and cemeteries with their stinging traps for the unwary, the dark red ant from South America could cause expensive, time-consuming quarantine restrictions to be placed on plant stock exported from Alabama's $100-million-a year nursery industry.

Dr. John Bloch of the State Department of Agriculture and Industries in Montgomery says individual inspection of each export shipment could be required within the next two to three years unless an effective residual pesticide is approved for use.

"The state exports about 75 percent of its nursery stock into the West, Midwest, and up the East Coast. If they don't have the proper product to maintain that certification, we are concerned that our stock will be turned back and not permitted to move as freely as it does now," Bloch said.

Chemicals are available for homeowners to combat the ants, but farmers and nursery owners complain that every time an inexpensive, residual chemical is developed for large-scale use, the federal government determines its long-term effects are too harmful to the environment.

Phillip Lawler, who grazes his 250 cattle on pastures near Montevallo, says chemicals currently available for agricultural use are too expensive and not effective unless a coordinated effort is made to treat surrounding acreage.

"If everybody doesn't treat their land, your neighbors' ants will just come on over to your land because they don't pay any attention to fences. You're just wasting your money if you try to do it yourself."

Lawler said once an area is infested, field chores can become a nightmare of encounters with the ants, whose bites raise painful, itching welts and blisters on the skin.

"You leave bales of hay in field overnight to dry, and if any fire ants are in that field they'll be in that hay by the next day. And you just try to get somebody to pick them up."

Although the state agriculture department made a supply of Amdro available to farmers last year at a reduced cost, Bloch says there is no special program this year to fight the ant.

The Environmental Protection Agency gave tentative approval last week to a new insecticide manufactured by Stauffer Chemical Co. under the name Pro-Drone. But that was done over the protests of environmentalists, who contend the insecticide has not been thoroughly tested.

EPA officials said the chemical is not a typical killing agent because it acts to disrupt the ants' behavioral pattern.

An EPA explanation said, "When Pro-Drone is picked up by the worker ant as food and fed to larvae, the larvae develop into useless adults instead of workers. The disappearance of worker ants ultimately leads to a decline in food-gathering, brood-tending, colony maintenance and eventually death to the entire colony."

EPA said it has not been approved for use on cropland, but it can be sprayed on pastures and lawns.

The environmental opposition, led by the Audubon Society, contends that not enough testing has been done to determine whether the new insecticide will eventually kill off competing ants, while allowing the fire ant to survive because of its shorter reproductive cycle.

The federal government has banned chemicals proven nearly 100 percent effective in stopping fire ants on farmland and nurseries.

The U.S. Department of Agriculture said it was theoretically possible to eradicate the fire ant from the United States by using Mirex, but the compound was found to cause cancer in humans. The manufacturers voluntarily removed it from the market in 1976.

Chlordane, an effective substitute for Mirex, was banned in 1979 because it also posed more of a threat to man than the ant, which is classified by the National Academy of Sciences as only a "nuisance."

Other chemicals are available to kill fire ants, but they are expensive when used over large areas and require frequent applications, as opposed to chlordane, which had a residual effect of up to three years.

Meanwhile, the ant that sneaked into the Southeast in the 1930s aboard banana boats at the Port of Mobile, continues to proliferate because it has no natural predators here. It has infested an estimated 230 million acres in the Southeast from from North Carolina to Texas. In some areas of central and southern Alabama mounds as high as three feet have been found.

Once the ant invades an area, the prolific queen ants begin establishing new colonies every 30 feet or so, lining roadsides and farmland.

Farmers say the hardened mounds can damage field equipment and the poisonous ant bites can kill newborn calves, although the USDA says there is no documented proof of livestock loss.

Experts are uncertain how far north the fire ant can spread before the climate becomes too cold, but they can possibly go as far as Washington, D.C. But even the climatological barrier is a question because of the adaptability the insects have shown.

The worst fear is that, despite quarantine measures, the fire ant will find its way westward from Texas to the vast farms of Southern California, where most crop-gathering is performed by hand.

STATEMENT OF DWIGHT SPULLER, MICHIGAN STATE SOIL CONSERVATION COMMITTEE

Thank you, Mr. Chairman. I am Dwight Spuller, Chairman of the Northwest Michigan RC&D Council, Chairman of the Michigan Council of RC&D Areas and President of the North Central Region Council of RC&D Areas.

It is my privelege to present to you some of our thoughts as to why we think the RC&D program should be continued and accelerated from the past two years. As we work with representatives of local governmental entities, we find expressed needs from counties, cities, villages, park and recreation commissions, county road systems, agricultural groups, marketing associations and many other public agencies and we realize that there are still many opportunities for improvement of our rural communities through the protection and improvement of our natural resources.

Control of erosion in projects we sponsor is of major importance. In water based recreation projects, erosion control is the first consideration because we realize that this control will not only make the recreation area more enjoyable, but will also protect our streams, lakes and harbors from siltation, while improving fish and wildfowl habitat. The use of plant materials for the control of wind erosion has been very successful. Tree seedlings planted on inland sites has done a remarkable job of healing eroding sites. In one project, a group of about 25 people over the age of 65 joined together to plant nearly 50,000 beachgrass plants to protect their property near Lake Michigan from the winds and blowing sand. Other projects had had similar results in other areas in Michigan.

In parks and recreation areas, we have provided facilities for family enjoyment through picnic areas, nature trails, camping areas and space for competitive sports. By providing these facilities in the lesser populated areas, we are making available places for the kids of these small communities to enjoy these competitive sports without having to drive miles to participate. By doing this, we feel that we are giving these kids an opportunity that might well have never been available to them.

County road systems have had problems with roadside erosion that has not only made necessary extensive soil replacement, but has had a degrading effect on many streams and lakes. By using the practices proposed by the RC&D program, roadside seeding of grasses and diversions to direct storm water safely to streams, we have been able to reduce costs on these farm to market roads and thereby allow more improvements on other rural farm to market roads.

Agricultural drainage, through county Drain Commissioners, with RC&D cost sharing, has provided area farmers with much needed outlets for excess water that was destroying crops or the ability to harvest them. Waste water disposal in a safe manner from agricultural products processing plants, through the RC&D program, has allowed them to meet state requirements for water quality. Some of this waste water is being pumped into storage and being used for irrigation.

We have just completed a unique project in Michigan that will have a lasting impact on forestry and the forest industry. Initiated by the RC&D Councils and financed by the U.S. Forest Service and the Michigan Department of Natural Resources, the Prime Forest

Lands Identification Project delineates the soils best suited to forest production in every county in our RC&D areas in Northern Michigan. This information is being made available to County Planning and Zoning Commissioners, Township Officers and Soil Conservation Districts. With Michigan's increasing dependance on the forest industry, this information will be invaluable. Other states are asking for the procedure we have developed to use in identifying their forest resources.

We are deeply concerned with the attempt to phase out RC&D areas. Our experience has proven to us, that the RC&D program has been the most successful rural development program devised, to date. The fact that it is a program completely under local direction, that all proposals originate locally by representatives of both private and public interests, that they are projects that reflect the needs for protection and orderly development of our natural resources, that the benefits derived from projects is so visible and the local people are so enthusiastic in their support of this program makes it preposterous to think that any government should want to discontinue it.

SCS has done a remarkable job of coordinating the work in RC&D, particularly in developing local leadership, getting all units of government to work together for a common cause, preparing projects for completion and obtaining financial support for projects.

One of the more important aspects of the RC&D program has been its ability to draw together the people of the community, representing both public agencies and private interests, working for a common interest that will improve the quality of life as well as protecting and improving our natural resources. In fifteen years of association with RC&D, I have never seen any expression of envy because one area or community was receiving more financial benefit than another.

We concur with the request of NACD that the RC&D program be funded at a level of 50 million dollars. We know there are projects awaiting action that would put that amount to a use that will benefit rural America for many years to come.

We thank you for your interest and consideration, aware of the fact that without your interest and concern our RC&D program would have been in jeopardy.

LIST OF WITNESSES, COMMUNICATIONS, AND PREPARED STATEMENTS

Page

Ahalt, J. Dawson, Acting Deputy Under Secretary for International Affairs and Commodity Programs, statement of 298
Anthony, Carolyn A. head of information and programing services, Baltimore County Public Library, prepared statement 511

Barnett, Jack A., executive director, Colorado River Basin Salinity Control Forum, prepared statement 569
Barr, John S. II, National Cotton Council of America, prepared statement 454
Baucus, Hon. Max, U.S. Senator from Montana 74
  Prepared statement 76
Bentley, Orville G., letter from 81
Berg, Norman A., Soil Conservation Society of America, prepared statement 235
Bernritter, Jack, president, Kansas Land Improvement Contractors Association, prepared statement 248
Berryman, Jack H., vice president, International Association of Fish and Wildlife Agencies 267

Carden, Hoover, administrator, Extension Programs, Prairie View A&M University, prepared statement 24
Cole, Nancy S., council for Agricultural Research, Extension and Teaching 101
Coleman, Ernest R., National Association of Home Builders 383
  Prepared statement 386
Colville, William, Federation of Scientific Agricultural Societies 141
  Prepared statement 143
Cronquist, Clark, president, North Dakota Rural Water Systems Association, prepared statement 583
Crossan, D. F., dean, College of Agriculture, University of Delaware, prepared statement 38
Cummings, David, National Pork Producers Council 432
Curl, Sam E., dean, College of Agricultural Sciences, Texas Tech University, prepared statement 222

Decker, W. M., D.V.M., American Veterinary Medical Association 469
  Prepared statement 433
DeConcini, Hon. Dennis, U.S. Senator from Arizona, letter from 501
Dee, Eric, Iowa Pork Producers Association, prepared statement 221
Dierks, Richard E., dean College of Veterinary Medicine, University of Illinois, prepared statement 34
Dodd, Hon. Christopher J., U.S. Senator from Connecticut, letter from 507
Dukakis, Hon. Michael S., Governor of the Commonwealth of Massachsetts, letter from 589
Dunbar, John, dean, College of Agriculture, Kansas State University 15
  Prepared statement 92

Early, Dr. Jack D., president, National Agricultural Chemicals Association, prepared statement 522
Edwards, Arthur, Council for Rural Housing and Development, prepared statement 312

Page
Elliott, Elizabeth, associate dean, Cooperative Extension Service, Iowa State University, prepared statement 21
Evans, Dr. Sidney H., associate dean, Agricultural Research, North Carolina A&T State University, prepared statement 47

Farley, David C., chairman, Council for Agricultural Research, Extension and Teaching 89
  Prepared statement 97
Felt, Mike, vice chairman, Government Relations, American Association of Crop Insurers, prepared statement 563
Fire ant stings, statements and affidavits concerning 6062
Fullarton, David C., National Telephone Cooperative Association, prepared statement 395

Garrison, T. Ed, State Senator from South Carolina, letter from 605
George, Rev. William L., S.J., Georgetown University 278
  Prepared statement 280
Gleiber, John, Society for Animal Protective Legislation, prepared statement 445
Goldhammer, Marc, vice president, Western Resource Conservation and Development Association 258
  Prepared statement 261
Graham, James A., North Carolina Commissioner of Agriculture, prepared statement 574
Gude, William F., Society of American Florists, prepared statement 152

Hair, Jay D., executive vice president, National Wildlife Federation, letter from ... 268
Hamby, Martha R., the Humane Society of the United States 425
  Prepared statement 429
Haroldson, Clinton, president, WesMin Resource Conservation and Development Association, prepared statement 578
Harriger, John, chairman, Water and Wastewater Equipment Manufacturers Association, Inc 363
Hartmann, William, Jr., Land Improvement Contractors of America, prepared statement 241
Healy, Patrick B., chief executive officer, National Milk Producers Federation, prepared statement 271
Hoover, Lillie, executive director, National Peach Council 147
  Prepared statement 149
Hunter, Paul, president, Southwestern States RC&D Association, prepared statement 263
Hurd, Charlie, Washington Legislation Committee, American Honey Producers Association, letter from 591

Inouye, Hon. Daniel K., U.S. Senator from Hawaii, prepared statement 498

Jackson, Hon. Henry M., U.S. Senator from Washington, letter from 108
Jamison, Robert E., Horry Telephone Cooperative, Inc., letter from 405
Jepsen, Hon. Roger, U.S. Senator from Iowa 195
  Prepared statement 197
Johnston, Hon. J. Bennett, U.S. Senator from Louisiana, letter from 500
Joyce, Richard K., Council for Agricultural Research, Extension and Teaching, prepared statement 99
Judd, Robert W., managing director, National Soybean Crop Improvement Council, prepared statement 556

Kahao, Kenneth H., president, American Sugar Cane League, prepared statement 581
Kasten, Hon. Robert W., Jr., U.S. Senator from Wisconsin, prepared statement 482
King, Joseph, Council for Agricultural Research, Extension and Teaching 98
  Prepared statement 90

Page
Krajewski, Tom, vice president, Cooperative League of the U.S.A 283
  Letter from 287
  Prepared statement 289

Leahy, Hon. Patrick J., U.S. Senator from Vermont 249
Lederer, Robert F., executive vice president, American Association of Nurserymen, Inc., prepared statement 543
Loden, Dr. Harold, executive vice president, American Seed Trade Association, Inc., prepared statement 567
Loeslie, Don, president, National Association of Wheat Growers 111
Love, Gene, associate dean-resident instruction, Pennsylvania State University 61
  Prepared statement 50

Mahlstede, John P., Iowa State University 208
  Prepared statement 209
Marshall, William E., chairman, National Agricultural Research and Extension Users Advisory Board 102
McEwen, Darryl P., Society of American Florists 152
McNeill, Peggy, chairman, Mid-Atlantic Resource Conservation and Development Association, prepared statement 586
McGinnis, W. Charles, president, National Dairy Herd Improvement Association, Inc 121
  Prepared statement 116
Melcher, Hon. John, U.S. Senator from Montana 62
  Prepared statement 64
Micklish, Wiliard R., director, Barnes-Aastad Soil and Water Conservation Research Association, Inc 255
  Prepared statement 256
Mitchell, Hon. George J., U.S. Senator from Maine, letter from 504
Morrison, Hon. Sid, U.S. Representative from Washington 107
  Prepared statement 108
Mullins, Robert J., director of legislative services, National Farmers Union, prepared statement 512
Murphy, Charles F., National Oat Improvement Committee 138
  Prepared statement 140

National Food Processors Association, statement of 559
Nichols, Buford L., M.D., scientific director, Baylor College of Medicine 129
  Prepared statement 131

Partridge, Robert D., Rural Electric Cooperative Association 414
  Prepared statement 415
Peterson, A. Harold, National REA Telephone Association, prepared statement 409
Peterson, Esther, prepared statement 508
Pressler, Hon. Larry, U.S. Senator from South Dakota, statement of 501
Prevette, John, chairman, Mid-East Resource Conservation and Development Council, prepared statement 588
Pryor, Hon. David, U.S. Senator from Arkansas 1
  Prepared statement 8
  Letter from 503
Purvis, Malcolm J., professor, International Agriculture, University of Minnesota, prepared statement 44

Ramsay, Louis L., Jr., National Center for Toxicological Research 1
  Prepared statement 9
Rapoza, Robert A., National Rural Housing Coalition, prepared statement 366
Resler, Rexford A., executive vice president, the American Forestry Association, prepared statement 561
Rice, Grace Ellen, assistant director, American Farm Bureau Federation 303
  Prepared statement 305
Riemer, Shoshana, Amyotrophic Lateral Sclerosis Society of America 460

Page

Ross, Hon. Jim Buck, Commissioner, Mississippi Department of Agriculture and Commerce, prepared statement ... 597

Sampson, R. Neil, executive vice president, National Association of Conservation Districts ... 228
  Prepared statement ... 229
Samuels, William, Association of American Medical Colleges ... 442
Schrickel, Donald J., chairman, the Milling Oats Improvement Association, statement of ... 543
Seccombe, Mary J., president, Western Resource Conservation and Development Association, prepared statement ... 258
Skok, Richard, dean, College of Forestry, University of Minnesota, prepared statement ... 41
Silverglade, Bruce A., Center for Science in the Public Interest, prepared statement ... 463
Smith, Stewart N., Commissioner, Maine Department of Agriculture, letters from ... 505
Snow, John J., Jr., chairman, Agriculture and Natural Resources Committee, House of Representatives, State of South Carolina, letter from ... 605
Spuller, Dwight, Michigan State Soil Conservation Committee, prepared statement ... 629
Stallings, John W., chairman, North Carolina Association of Soil and Water Conservation Districts, letter from ... 590
Stratton, Kenneth G., secretary-treasurer, National Association of State Foresters .. 158
  Prepared statement ... 159
Strothmann, Harvey, vice president, MFA Inc., statement of ... 293

Trull, Frankie L., Association for Biomedical Research ... 476

Vodra, Richard E., National Organization for Rare Disorders ... 447
  Prepared statement ... 450

Weber, John, president-elect, National Cattlemen's Association, prepared statement ... 122
Weems, Ralph, Jr., vice president, American Soybean Association ... 164
  Prepared statement ... 167
Weeth, Harold, U.S. Agricultural Export Development Council ... 172
  Prepared statement ... 320
Wilson, Harold O., executive director, Housing Assistance Council ... 316
  Prepared statement ... 320
Wilson, Mary Ann, National Neurofibromatosis Foundation ... 461
Woeste, John T., dean, Cooperative Extension Service, University of Florida, prepared statement ... 29
Wood, William F., chairman, National Association of Agriculture Employees, prepared statement ... 588
Wordell, David H., president, New England Association of RC&D Areas ... 252

SUBJECT INDEX

Page

- Acquired immunodeficiency syndrome (AIDS) ... 448
- Agricultural Cooperative Service ... 272, 284
- Agricultural partnerships ... 101
- Agricultural research ... 38, 59, 457
- Animal and Plant Health Inspection Service ... 304, 310, 458, 478
- Animal:
  - Cancer research ... 64
  - Cruelty ... 443
  - Disease research ... 475
  - Health and disease ... 277
  - Health research ... 18
  - Welfare ... 425, 443, 446, 475, 476
- Appalachian Fruit Research Station ... 149
- Appropriation levels ... 381
- Aquaculture ... 31
- Authorizing legislation ... 319
- Bell system divestiture ... 412
- Beltsville, greenhouses at ... 157
- Block grant proposal ... 316, 381
- Brucellosis ... 276, 435, 475
- Budget request ... 59, 102, 240, 364, 384, 426, 444, 449, 461
- Children's Nutrition Research Center ... 130
- Competitive Grants ... 120, 434
- Conservation ... 63, 115, 239
- Cotton research ... 458
- Dairy indemnities ... 274, 276
- Dairy products exports ... 276
- Economic research ... 106
- Economic services ... 125
- Education and research ... 144
- Employment opportunities ... 365
- Expanded food and nutrition education program ... 101
- Export credit ... 112, 173, 305, 459
- Extension programs ... 19, 32
- Farmers Home Administration, rate of expenditure ... 317
- Federal crop insurance ... 115
- Food and agricultural base ... 16
- Food and Nutrition Service ... 273
- Food Safety and Inspection Service ... 436
- Forestry incentives program ... 160
- Freeze and fix proposal ... 303
- Genetic engineering ... 107, 139
- Germplasm ... 114, 138
- Government-assisted housing ... 384
- Graduate fellowships ... 21, 141
- Housing industry ... 383
- Human capital shortages ... 52, 60
- Integrated pest management ... 20
- Integrated reproduction management ... 20, 31, 120, 433

Page
Interest rates 402
Leafminer 157
Leafy spurge research 74
Market development 165, 173
Marketing and inspection 124
Minimum tillage 257
National Center for Toxicological Research 3, 5
Neurofibromatosis 462
North Central Research Lab 257
Nutrition assistance grant 277
Oats aids diabetics 138
Operating loans 319
Orphan diseases 448
Orphan drugs 460, 462
Peach research 147
Pest management 458
Pesticide impact assessment 114
Payment-in-kind program 286
Plant:
    Breeding research 139
    Physiology, funding of 104
    Stress and water conservation 226
Post-harvest physiology 110
Product and distribution research 121
Productivity research 113
Pseudorabies 197, 219, 435
Public Law 480 112, 165, 285
Pullman Lab 114
Resource conservation and development (RC&D) program 252, 260, 267
Renewable resources 267
Reprograming 318
Research 442
    Budget 100
    Facilities 73
Research and extension 58, 433
Research, extension and teaching 89
Rural:
    Community fire protection 161
    Development policy—"Better Country" 255, 267
    Housing 315, 381
    Rental assistance 317
Rural Electrification Administration 401
    Financing 423
    Guaranteed loans 423
    Loans 284
Saline seep 72
Science and education 123
Science and technology authority 4
Scientists 476
Sidney laboratory 72, 74
Smith-Lever 29
Sodium bisulfite 467
Sodium labeling 468
Soil:
    Erosion 246
    Scientists 258
    Tilth center 196
Soybeans 164
Special foreign currency program 45
Special supplemental food program for women, infants, and children (WIC) 131
Staffing 318

Page
Student exchange program 278
Substandard housing 317
Technical assistance 254
Telephone bank recapitalization 414
Telephone loans 412
University linkages 45
Users Advisory Board recommendation 105
Water and wastewater programs 364
Wheat quality labs 113

○